

| Set | Items | Description |
|---|-------|-------------------|
| S1 | 44 | AU='SUNDARESAN N' |
| File 347:JAPIO Nov 1976-2004/Jul (Updated 041102) | | |
| (c) 2004 JPO & JAPIO | | |
| File 348:EUROPEAN PATENTS 1978-2004/Oct W05 | | |
| (c) 2004 European Patent Office | | |
| File 349:PCT FULLTEXT 1979-2002/UB=20041104,UT=20041028 | | |
| (c) 2004 WIPO/Univentio | | |
| File 350:Derwent WPIX 1963-2004/UD,UM &UP=200471 | | |
| (c) 2004 Thomson Derwent | | |

09/502,818
STIC search

1/5/1 (Item 1 from file 350)
DIALOG(R) File 350:Derwent WPIX
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016433258 **Image available**
WPI Acc No: 2004-591175/200457
Related WPI Acc No: 2001-353533
XRPX Acc No: N04-467450

Asynchronous communication method for mail between distributed objects on computer system, involves sending mail having level of abstraction of type independent of name registration and name of mail, from virtual mailbox

Patent Assignee: INT BUSINESS MACHINES CORP (IBM)

Inventor: CHANG D T; SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6769014 | B1 | 20040727 | US 97884457 | A | 19970627 | 200457 B |
| | | | US 98108854 | A | 19980701 | |

Priority Applications (No Type Date): US 97884457 A 19970627; US 98108854 A 19980701

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|-------------|--------------------|--------------|
| US 6769014 | B1 | 58 | G06F-015/16 | Div ex application | US 97884457 |

Abstract (Basic): US 6769014 B1

NOVELTY - A mail having level of abstraction of a type independent of name registration and name of the mail, is created. A virtual mailbox which is associated with name of remote destination for the mail, is created. The created mail is sent from virtual mailbox in a local computer system, to mailbox of destination by a virtual post office.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) article of manufacture for use in distributed computer system for asynchronously communicating mail between distributed objects on computer system; and

(2) distributed computer system.

USE - For asynchronously communicating mail between distributed Java objects on computer system such as portable computer system, desktop computer system, workstation and mainframe computer system, for communication between agents such as mobile agent, task-specific agent, intelligent agent, collaborating agent, internet agent, and hosting servers through local area network (LAN), intranet, internet.

ADVANTAGE - The communication efficiency between the agent-hosting server, is improved.

DESCRIPTION OF DRAWING(S) - The figure shows a flowchart explaining mail transmitting process.

pp; 58 DwgNo 8/28

Title Terms: ASYNCHRONOUS; COMMUNICATE; METHOD; MAIL; DISTRIBUTE; OBJECT; COMPUTER; SYSTEM; SEND; MAIL; LEVEL; ABSTRACT; TYPE; INDEPENDENT; NAME; REGISTER; NAME; MAIL; VIRTUAL; MAILBOX

Derwent Class: T01

International Patent Class (Main): G06F-015/16

International Patent Class (Additional): G06F-007/00

File Segment: EPI

1/5/2 (Item 2 from file: 350)
DIALOG(R) File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

016271707 **Image available**
WPI Acc No: 2004-429601/200440
Related WPI Acc No: 2003-719851
XRPX Acc No: N04-339530

Mark-up language document e.g. HTML reformatting method for personal
computer connected work station, involves reformatting with schema having
keyword structure based on re-labeling non-keyword set with keyword label

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: CHUNG C Y; SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|---------------|------|----------|----------|
| US 6738767 | B1 | 20040518 | US 2000531019 | A | 20000320 | 200440 B |

Priority Applications (No Type Date): US 2000531019 A 20000320

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|--------------|
| US 6738767 | B1 | | 23 | G06F-017/30 | |

Abstract (Basic): US 6738767 B1

NOVELTY - The method involves tokenizing semantic and formatting nodes of a document and identifying a set of keyword nodes having the semantic nodes. A non-keyword set of nodes having semantic and formatting nodes that are not an element of the keyword nodes is identified. The document is reformatted with a schema having a keyword structure based on re-labeling each node of the non-keyword set with a keyword label.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a method of extracting a schematic structure from a document represented by an ordered tree having labeled nodes

(2) an article of manufacture comprising a computer user medium having a computer readable program code for implementing reformatting a mark-up language document by discovering a schematic structure from the document and creating a reformatted document with a schema corresponding to the schematic structure

(3) a computer-based system for extracting a schematic structure from a document represented by an ordered tree having labeled nodes.

USE - Used for reformatting a mark-up language document e.g. HTML, XML on personal computer connected work station e.g. networked LAN, across extended network e.g. Internet using portable equipment e.g. laptop computer.

ADVANTAGE - The method automatically identifies the schematic structural and tag information from HTML documents and then converts the documents according to the extracted information. The method supports structural queries from search engines that locate data that are more semantically related to the requested information than the data located by simple keyword searching.

DESCRIPTION OF DRAWING(S) - The drawing shows an overview of a five step schema extraction process.

Token separator (202)

Keyword matching information (204)

HTML phrase tags (206)

HTML header tags (208)

XML document (220)

XML tree (222)

pp; 23 DwgNo 2/8

Title Terms: MARK; UP; LANGUAGE; DOCUMENT; METHOD; PERSON; COMPUTER;
CONNECT; WORK; STATION; KEYWORD; STRUCTURE; BASED; NON; KEYWORD; SET;
KEYWORD; LABEL

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

1/5/3 (Item 3 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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016020508 **Image available**

WPI Acc No: 2004-178359/200417

XRPX Acc No: N04-141742

Application tool association method for personalizing and applying post processing tool system, involves formatting and sending results page to user via browser after inserting tool link into search results page

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: KRAFT R; **SUNDARESAN N**

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|---------------|------|----------|----------|
| US 6691104 | B1 | 20040210 | US 2000482211 | A | 20000112 | 200417 B |

Priority Applications (No Type Date): US 2000482211 A 20000112

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|--------------|
| US 6691104 | B1 | | 14 | G06F-017/30 | |

Abstract (Basic): US 6691104 B1

NOVELTY - The method involves formatting and sending a results page to a user via a browser or other means after inserting at least one tool link into the search results page and marking extracted URLs of found external resources in response to a search query. The tool link specifies a tool or service which is associated with the data type associated with each of the extracted URLs.

DETAILED DESCRIPTION - The data type associated is specified by a specification in a registration that was provided by a previous user input request and added to the user registration profile database. The search results page and extracted URLs of found external resources are analyzed if there are registered tools in the user registration profile database. The registered tools in the user registration profile database are looked up using the session or user ID corresponding to a user input request as an indexing key. If a new association between the data type and a new tool or service is to be registered in response to the registration of the user input request, a new tool or service information is added to the user registration profile database.

INDEPENDENT CLAIMS are included for the following:

- (1) Application tool association system; and
- (2) Computer-readable recording medium storing the program codes for the application tool association method.

USE - For personalizing and applying post processing tool system. For Internet search engines, web browsers and resource gathering.

ADVANTAGE - Offers the user the possibility to link personalized tools or services with the search results of a search query, in which user leverages convenience and a variety of other general benefits. Ensures that user just have to register a personalized application tool just once during a search process. Enables user to integrate personalized tools or services and customize these as desired. Provides a very flexible and customizable way to manipulate and process search results based on user profiles. Ensures wide application in the application of web-based services.

DESCRIPTION OF DRAWING(S) - The figure shows a process flowchart of the application tool association method.

pp; 14 DwgNo 7/7

Title Terms: APPLY; TOOL; ASSOCIATE; METHOD; APPLY; POST; PROCESS; TOOL; SYSTEM; FORMAT; SEND; RESULT; PAGE; USER; AFTER; INSERT; TOOL; LINK; SEARCH; RESULT; PAGE

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

1/5/4 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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016020343 **Image available**

WPI Acc No: 2004-178194/200417

XRPX Acc No: N04-141581

**Interactive bidirectional profile matching method using internet,
involves matching new path expression in new source document to index of
target documents, based on index schema of each target document**

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: **SUNDARESAN N**

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|---------------|------|----------|----------|
| US 6681223 | B1 | 20040120 | US 2000626690 | A | 20000727 | 200417 B |

Priority Applications (No Type Date): US 2000626690 A 20000727

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|--------------|
| US 6681223 | B1 | | 15 | G06F-017/30 | |

Abstract (Basic): US 6681223 B1

NOVELTY - A new path expression in a new source document is matched to the index from each structured target document, based on the index schema of each structured target document, to perform dynamic interactive directional profile matching.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) system for performing interactive bidirectional profile matching;

(2) computer program product for performing interactive bidirectional profile matching.

USE - For performing interactive bidirectional profile matching for job seekers using internet.

ADVANTAGE - Computation time is minimized.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart explaining the interactive bidirectional profile matching process.

pp; 15 DwgNo 3/3

Title Terms: INTERACT; BIDIRECTIONAL; PROFILE; MATCH; METHOD; MATCH; NEW; PATH; EXPRESS; NEW; SOURCE; DOCUMENT; INDEX; TARGET; DOCUMENT; BASED; INDEX; TARGET; DOCUMENT

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

1/5/5 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015948469 **Image available**

WPI Acc No: 2004-106310/200411

XRPX Acc No: N04-084542

Computer-based software documentation generation system for object oriented application, includes class tag containing names of classes, in which right-hand side element of extended backup Naur form production is introduced

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: **SUNDARESAN N**

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|---------------|------|----------|----------|
| US 6675370 | B1 | 20040106 | US 2000495867 | A | 20000202 | 200411 B |

Priority Applications (No Type Date): US 2000495867 A 20000202

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|--------------|
| US 6675370 | B1 | | 9 | G06F-009/44 | |

Abstract (Basic): US 6675370 B1

NOVELTY - A set of Java-based tags implemented in extended markup language, contains identification tags and corresponding values for a left-hand side and each set of right-hand side elements of extended

backup Naur form (EBNF) production and a class tag. The class tag contains names of the classes in which the right-hand-side element is introduced. A document generator uses the names to produce documentation.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) documentation processor;
- (2) method of processing extended tag language representations; and

(3) recorded medium storing program for processing extended tag language representations.

USE - For generating software documentation for multi-class object-oriented applications generated using C++, Java, Ada95, Smalltalk and Eiffel.

ADVANTAGE - Since the class tag contain names of the classes in which the right-hand side element is introduced, the documentation of the reduction within separate classes can be browsed and enables cross linking between the classes.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart explaining the method of processing extended tag language representations.

pp; 9 DwgNo 1/3

Title Terms: COMPUTER; BASED; SOFTWARE; DOCUMENT; GENERATE; SYSTEM; OBJECT; ORIENT; APPLY; CLASS; TAG; CONTAIN; NAME; CLASS; RIGHT; HAND; SIDE; ELEMENT; EXTEND; FORM; PRODUCE; INTRODUCING

Derwent Class: T01

International Patent Class (Main): G06F-009/44

File Segment: EPI

1/5/6 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015834130 **Image available**

WPI Acc No: 2003-896334/200382

XRPX Acc No: N03-715253

Web pages query processing method, involves optimizing query by filtering documents from hierarchal set that will produce an empty result and maintaining indexing structure for tree matching

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: MANI M; **SUNDARESAN N**

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|---------------|------|----------|----------|
| US 6654734 | B1 | 20031125 | US 2000652328 | A | 20000830 | 200382 B |

Priority Applications (No Type Date): US 2000652328 A 20000830

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|-------------|--------------|
| US 6654734 | B1 | 16 | G06F-017/30 | |

Abstract (Basic): US 6654734 B1

NOVELTY - The method involves optimizing query by filtering documents from hierarchal set that will produce an empty result and maintaining an indexing structure for tree matching. The structure has a value index and a structure index relating to document content and a tree structure pattern of the filtered document, respectively. A link index links the relationships between the non-filtered document and the hierarchical document.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a query system for querying a set of hierarchical documents.

USE - Used for processing query utilized in indexing and caching web pages.

ADVANTAGE - The method utilizes schema-based optimization so as to minimize the number of documents on which query is done by eliminating the redundant conditions in the query and hence simplifying the

construction cost. The method utilizes index optimization so as to reduce the number of steps in the query process.

DESCRIPTION OF DRAWING(S) - The drawing shows a block diagram representing a query process.

pp; 16 DwgNo 6/6

Title Terms: WEB; PAGE; QUERY; PROCESS; METHOD; OPTIMUM; QUERY; FILTER; DOCUMENT; SET; PRODUCE; EMPTY; RESULT; MAINTAIN; INDEX; STRUCTURE; TREE; MATCH

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

1/5/7 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015833158 **Image available**

WPI Acc No: 2003-895362/200382

XRPX Acc No: N03-714348

Search engine information updating method for Internet, involves modifying information of web page when response code indicates web page is moved

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: HUANG A W; SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|---------------|------|----------|----------|
| US 6611835 | B1 | 20030826 | US 2000565129 | A | 20000504 | 200382 B |

Priority Applications (No Type Date): US 2000565129 A 20000504

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|-------------|--------------|
| US 6611835 | B1 | 17 | G06F-017/30 | |

Abstract (Basic): US 6611835 B1

NOVELTY - The search engine information relating to the web page is deleted, when response code indicates that the web page is not found, by updating and deleting meta data summarizing web pages indicated by parent uniform resource locators. The information is modified, when response code indicates that the web page has been moved.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) system for updating search engine information; and
- (2) computer program product for updating search engine information.

USE - For updating search engine information related to web page, for web-based application.

ADVANTAGE - Updates search engine indexes and link structure information efficiently, in less time, using simple procedure.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart explaining the search engine information updating process.

pp; 17 DwgNo 9/9

Title Terms: SEARCH; ENGINE; INFORMATION; UPDATE; METHOD; MODIFIED;

INFORMATION; WEB; PAGE; RESPOND; CODE; INDICATE; WEB; PAGE; MOVE

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

1/5/8 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015789220 **Image available**

WPI Acc No: 2003-851423/200379

XRPX Acc No: N03-679947

Automatic mining system relevant terms from Internet, creates vector for document, using hypertext links extracted from document, and calculates number of documents containing metadata terms

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: **SUNDARESAN N** ; YI J

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6651059 | B1 | 20031118 | US 99440602 | A | 19991115 | 200379 B |

Priority Applications (No Type Date): US 99440602 A 19991115

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|--------------|
| US 6651059 | B1 | | 12 | G06F-017/30 | |

Abstract (Basic): US 6651059 B1

NOVELTY - An extractor (90) extracts the hypertext links containing the metadata terms from a document in a database. A vector module (100) creates a vector for document, using the extracted hypertext links, and an association module (110) calculates the number of documents containing the metadata terms, and determines the association rules comprising a support metric and a hybrid metric, from the document vector.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) computer program product for automatic mining process of relevant terms; and

(2) automatic mining method of relevant terms.

USE - For automatically and iteratively mining relevant terms from communication network e.g. Internet.

ADVANTAGE - Since the association errors occurring in the relevant terms mining process are minimized, the relevant terms are identified from the database, with high degree of confidence.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the automatic mining system.

automatic mining system (10)

communication network (20)

extractor (90)

document vector module (100)

association module (110)

pp; 12 DwgNo 2/3

Title Terms: AUTOMATIC; MINE; SYSTEM; RELEVANT; TERM; VECTOR; DOCUMENT; LINK; EXTRACT; DOCUMENT; CALCULATE; NUMBER; DOCUMENT; CONTAIN; TERM

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

1/5/9 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015789219 **Image available**

WPI Acc No: 2003-851422/200379

XRPX Acc No: N03-679946

Automatic terms discovering system identifies relevant terms specified by user in document, by filtering false relevance and applying association rules to potentially relevant terms

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: **SUNDARESAN N** ; YI J

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6651058 | B1 | 20031118 | US 99439758 | A | 19991115 | 200379 B |

Priority Applications (No Type Date): US 99439758 A 19991115

Patent Details:

Abstract (Basic): US 6651058 B1

NOVELTY - A candidate terms discoverer comprises an association module which performs statistical analysis of occurrence of the terms within a single document, and a filtering module filters association rules that surpasses a user specified threshold. A terms discoverer identifies relevant terms by filtering false relevance and applying the association rules to the potentially relevant terms.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) automatic terms discovering method; and
- (2) a recorded medium for storing the automatic terms discovering program.

USE - Automatic terms discovering system.

ADVANTAGE - The automatic system discovers the terms relevant to the given target topic from a large database of unstructured information such as world wide web.

DESCRIPTION OF DRAWING(S) - The figure shows a flowchart explaining the automatic terms discovering method.

pp; 18 DwgNo 9/9

Title Terms: AUTOMATIC; TERM; DISCOVER; SYSTEM; IDENTIFY; RELEVANT; TERM; SPECIFIED; USER; DOCUMENT; FILTER; FALSE; RELEVANT; APPLY; ASSOCIATE; RULE; POTENTIALLY; RELEVANT; TERM

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

1/5/10 (Item 10 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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015667572 **Image available**
WPI Acc No: 2003-729759/200369
XRPX Acc No: N03-583253

Computer-based notification providing system for network, has associated actions that includes transmitting notification message to client computers, message includes digital image of real world event

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: EMENS M L; KRAFT R; **SUNDARESAN N**

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6591279 | B1 | 20030708 | US 99298217 | A | 19990423 | 200369 B |

Priority Applications (No Type Date): US 99298217 A 19990423

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|-------------|--------------|
| US 6591279 | B1 | 9 | G06F-017/00 | |

Abstract (Basic): US 6591279 B1

NOVELTY - The system has a server (104) for receiving one or more notification profiles including sensor (120) conditions and associated actions from client computers (102), and for receiving an indication that a real world event has occurred. The associated actions include transmitting a notification message to one or more of the client computers, the message includes a digital image of the real world event.

DETAILED DESCRIPTION - The server matches the received indication against the sensor conditions in stored notification profiles and performing associated actions in response to a match between the received indication and sensor conditions. INDEPENDENT CLAIMS are also included for the following:

- (a) a method for providing computer-based notifications of real world events over a network

(b) an article of manufacture comprising a computer program carrier readable by a computer program carrier readable by a computer.

USE - User for providing notification of real-world events over Internet using digital images.

ADVANTAGE - The system provides computer-based notifications of real world events e.g. parent working at office can notify through Internet that their baby is crying at home.

DESCRIPTION OF DRAWING(S) - The drawing shows an exemplary hardware environment used to implement a computer-based notification providing system.

Client computers (102)

Server computers (104)

Sensors (120)

pp; 9 DwgNo 1/2

Title Terms: COMPUTER; BASED; NOTIFICATION; SYSTEM; NETWORK; ASSOCIATE;

ACTION; TRANSMIT; NOTIFICATION; MESSAGE; CLIENT; COMPUTER; MESSAGE;

DIGITAL; IMAGE; REAL; WORLD; EVENT

Derwent Class: T01; W04

International Patent Class (Main): G06F-017/00

File Segment: EPI

1/5/11 (Item 11 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015657666 **Image available**

WPI Acc No: 2003-719851/200368

Related WPI Acc No: 2004-429601

XRPX Acc No: N03-575413

Document schema identification method e.g. for hypertext markup language document, involves identifying frequent label path sets satisfying constraint which specifies restriction on schematic structures in majority schema

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: CHUNG C Y; SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|---------------|------|----------|----------|
| US 6604099 | B1 | 20030805 | US 2000531019 | A | 20000320 | 200368 B |
| | | | US 2000628097 | A | 20000727 | |

Priority Applications (No Type Date): US 2000628097 A 20000727; US 2000531019 A 20000320

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|-------------|----------------------------------|
| US 6604099 | B1 | 14 | G06F-017/30 | CIP of application US 2000531019 |

Abstract (Basic): US 6604099 B1

NOVELTY - The extracted schematic structures of the XML documents are represented as sets of ordered trees with nodes labeled by title and content keywords, and are converted into sets of label paths (P1-P6). The frequent label path sets representing majority schema and satisfying a constraint that specifies a restriction on the schematic structures in the majority schema, are identified.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a computer program product for majority schema identification.

USE - For identifying majority schema of semi-structured documents such as extended markup language documents, hypertext markup language (HTML) document, and standard generalized markup language documents using Internet.

ADVANTAGE - The constraints help reduce search space and enable filtering out noise. Hence improved efficiency and simplified search are assured. Automated analysis of equivalencies in the label paths is enabled.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the ordered trees.

label paths (P1-P6)
trees (T1-T3)
pp; 14 DwgNo 5/5
Title Terms: DOCUMENT; IDENTIFY; METHOD; LANGUAGE; DOCUMENT; IDENTIFY;
FREQUENT; LABEL; PATH; SET; SATISFY; CONSTRAIN; SPECIFIED; RESTRICT;
SCHEME; STRUCTURE; MAJORITY
Derwent Class: T01
International Patent Class (Main): G06F-017/30
File Segment: EPI

1/5/12 (Item 12 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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015645668 **Image available**
WPI Acc No: 2003-707851/200367
XRPX Acc No: N03-565542

**Text classifier for semi-structured document, has sorting module that
accounts for frequency of occurrence of individual terms in document at
each hierarchical level of structured vector model**

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: SUNDARESAN N ; YI J

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|---------------|------|----------|----------|
| US 6606620 | B1 | 20030812 | US 2000624616 | A | 20000724 | 200367 B |

Priority Applications (No Type Date): US 2000624616 A 20000724

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|--------------|
| US 6606620 | B1 | | 15 | G06F-017/30 | |

Abstract (Basic): US 6606620 B1

NOVELTY - A vectorization module parses an XML document into a structured vector model (200) which is divided into a tree of sub-vectors to reflect several hierarchical levels. A sorting module accounts for the frequency of occurrence of the individual terms in the document at each level. A class that maximizes a posterior class probability, is assigned to the document according to a predefined expression.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) computer program product for dynamically classifying semi-structured document; and

(2) semi-structured document classification method.

USE - Classifier for dynamically classifying semi-structured document with HTML/XML format.

ADVANTAGE - A dynamic and accurate classification of the documents can be achieved, efficiently.

DESCRIPTION OF DRAWING(S) - The figure shows the structured vector model.

structured vector model (200)

pp; 15 DwgNo 4/8

Title Terms: TEXT; CLASSIFY; SEMI; STRUCTURE; DOCUMENT; SORT; MODULE;
ACCOUNT; FREQUENCY; OCCUR; INDIVIDUAL; TERM; DOCUMENT; HIERARCHY; LEVEL;
STRUCTURE; VECTOR; MODEL

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

1/5/13 (Item 13 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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015645514 **Image available**

WPI Acc No: 2003-707697/200

XRPX Acc No: N03-565389

Extensible markup language documents retrieving method involves recomputing hub scores and authority scores maintained for documents and schema, for ordering documents and schema

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: HUANG A W; SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|---------------|------|----------|----------|
| US 6601075 | B1 | 20030729 | US 2000626613 | A | 20000727 | 200367 B |

Priority Applications (No Type Date): US 2000626613 A 20000727

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|-------------|--------------|
| US 6601075 | B1 | 13 | G06F-017/30 | |

Abstract (Basic): US 6601075 B1

NOVELTY - The authority scores a(s) for each schema used by extensible markup language (XML) documents are recomputed by a ranking manager, based on hub scores h(d) and authority score a(d) for each document. The manager recomputes a(d) and h(d), based on authority scores a(s) used for schema and hub scores, and authority scores a(d). The documents and schemas are ordered based on the scores for returning an ordered set of documents.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) documents ranking method;
- (2) documents retrieving system; and
- (3) computer software product for ranking a set of documents.

USE - For retrieving extensible markup language (XML) documents.

ADVANTAGE - Enhances the ability to identify schemas of high authority using the authority and hub scores of XML documents.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of a high level architecture of ranking manager.

ranking manager (10)
search engine repository (210)
indexing engine (220)
search engine (240)
indexed data repository (260)
pp; 13 DwgNo 2/4

Title Terms: EXTEND; LANGUAGE; DOCUMENT; RETRIEVAL; METHOD; HUB; SCORE;

AUTHORISE; SCORE; MAINTAIN; DOCUMENT; ORDER; DOCUMENT

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

1/5/14 (Item 14 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015491639 **Image available**

WPI Acc No: 2003-553786/200352

XRPX Acc No: N03-439620

Automatic data mining system in computer system, defines new relationship category to store relation, when both linguistic technique and statistical technique fails to identify relationship category for preset relation

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: SUNDARESAN N ; YI J

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6539376 | B1 | 20030325 | US 99440626 | A | 19991115 | 200352 B |

Priority Applications (No Type Date): US 99440626 A 19991115

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes
US 6539376 B1 13 G06F-017/30

Abstract (Basic): US 6539376 B1

NOVELTY - A linguistic technique is applied to classify a relation in relation database (80) when there is no relationship category in relationship database (130) corresponding to the relation. A statistical technique is used to classify the relation when linguistic technique fails to identify corresponding relationship category, and if this technique also fails to identify, then a new relationship category is defined to store the relation.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) computer program product for automatic data mining; and
- (2) automatic data mining method.

USE - For identifying relevant term from large text database containing digitally encoded documents, books, pictures and audios, in computer system.

ADVANTAGE - Identifies set of related terms from large text database with high degree of confidence.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of automatic data mining system.

relation database (80)
relationship database (130)
pp; 13 DwgNo 2/5

Title Terms: AUTOMATIC; DATA; MINE; SYSTEM; COMPUTER; SYSTEM; DEFINE; NEW; RELATED; CATEGORY; STORAGE; RELATED; TECHNIQUE; STATISTICAL; TECHNIQUE; FAIL; IDENTIFY; RELATED; CATEGORY; PRESET; RELATED

Derwent Class: T01

International Patent Class (Main): G06F-017/30

International Patent Class (Additional): G06F-007/00

File Segment: EPI

1/5/15 (Item 15 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015449900 **Image available**

WPI Acc No: 2003-512042/200348

XRPX Acc No: N03-406334

Document schemes converting method for object-oriented computer system, involves generating class specifications from document schemes and instantiating Java object from generated class specifications

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: **SUNDARESAN N**

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6569207 | B1 | 20030527 | US 98166043 | A | 19981005 | 200348 B |

Priority Applications (No Type Date): US 98166043 A 19981005

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes
US 6569207 B1 13 G06F-017/00

Abstract (Basic): US 6569207 B1

NOVELTY - The object-oriented class specifications are generated from document schemes in the computer system. The Java objects are instantiated from the generated object-oriented class specifications using data contained in the documents, which complies with document schemes.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) apparatus for converting document schemes; and
- (2) computer program for converting document schemes.

USE - For converting extensible markup language (XML) schemes into component models in object-oriented computer system, to generate web content for use in e.g. electronic commerce and web-based workflow.

ADVANTAGE - Automatically generates Java classes using XML schemes and instantiates Java objects using XML documents. Thereby, the design data is utilized effectively.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram illustrating how a Beam Maker instantiates Java objects from XML documents using the Java class specifications.

pp; 13 DwgNo 3/3

Title Terms: DOCUMENT; SCHEME; CONVERT; METHOD; OBJECT; ORIENT; COMPUTER; SYSTEM; GENERATE; CLASS; SPECIFICATION; DOCUMENT; SCHEME; OBJECT; GENERATE; CLASS; SPECIFICATION

Derwent Class: T01

International Patent Class (Main): G06F-017/00

File Segment: EPI

1/5/16 (Item 16 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

015393697 **Image available**

WPI Acc No: 2003-455838/200343

XRFX Acc No: N03-362446

Application tool association system for Internet search engine, permits tool/service to be associated with search result and also to be brokered to users on client side

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: KRAFT R; SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|---------------|------|----------|----------|
| US 6529899 | B1 | 20030304 | US 2000481164 | A | 20000112 | 200343 B |

Priority Applications (No Type Date): US 2000481164 A 20000112

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|-------------|--------------|
| US 6529899 | B1 | 17 | G06F-017/30 | |

Abstract (Basic): US 6529899 B1

NOVELTY - A registration unit (0702) permits a user to associate a given tool/service with a search result and permits the tool/service to be brokered to users on client side. A result analyzer (0703) analyzes the user requested search result page and extracts the uniform resource locator (URL) of the external resources. The identified URL is routed to user as display page that is downloadable on client side.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) application tool association method; and
- (2) computer usable medium storing application tool association program.

USE - For associating personalized application tool and/or service in response to data supplied by search request, for Internet search engine.

ADVANTAGE - Allows the user to use the search result items automatically as an input for post processing based on registered tools or services and thus the overall efficiency of searching and data analysis functions by the user is improved.

DESCRIPTION OF DRAWING(S) - The figure shows the functional block diagram of the application tool association system.

registration unit (0702)

result analyzer (0703)

pp; 17 DwgNo 7/8

Title Terms: APPLY; TOOL; ASSOCIATE; SYSTEM; SEARCH; ENGINE; PERMIT; TOOL; SERVICE; ASSOCIATE; SEARCH; RESULT; USER; CLIENT; SIDE

Derwent Class: T01

1/5/17 (Item 17 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

015331532 **Image available**
WPI Acc No: 2003-392467/200337
XRPX Acc No: N03-313592

Search results ranking system used with search engine, has result sorter that generates ranked matches by sorting query results based on stored rating data indexed by off-line ranking system

Patent Assignee: SUNDARESAN N (SUND-I)

Inventor: SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| US 20030033299 | A1 | 20030213 | US 2000488471 | A | 20000120 | 200337 B |

Priority Applications (No Type Date): US 2000488471 A 20000120

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|----------------|------|--------|-------------|--------------|
| US 20030033299 | A1 | 12 | G06F-007/00 | |

Abstract (Basic): US 20030033299 A1

NOVELTY - An off-line ranking system indexes received rating data that is compiled from an off-line source, based on interactive criteria. A ranking repository stores the indexed rating data. A result sorter (140) generates ranked matches (185), by sorting query results generated by search engine based on the stored ranking data.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) search results ranking program; and

(2) search result ranking method.

USE - Used with search engine.

ADVANTAGE - Enables to form a composite rating system by weighting and combining the ratings provided by online questionnaires and off-line ratings. Effectively integrates user provided interactive criteria such as customer satisfaction and online user's satisfaction, with search engine results. Enhances the ranking quality by simply providing a list of rating counts for a business.

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram and the business rating system.

result sorter (140)

ranked matches (185)

pp; 12 DwgNo 2/5

Title Terms: SEARCH; RESULT; RANK; SYSTEM; SEARCH; ENGINE; RESULT; SORT; GENERATE; RANK; MATCH; SORT; QUERY; RESULT; BASED; STORAGE; RATING; DATA; INDEX; LINE; RANK; SYSTEM

Derwent Class: T01

International Patent Class (Main): G06F-007/00

File Segment: EPI

1/5/18 (Item 18 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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015331531 **Image available**
WPI Acc No: 2003-392466/200337
XRPX Acc No: N03-313591

Search result ranking system for search engine, has result sorter that generates ranked matches by sorting query results based on rating data from online ranking repository

Patent Assignee: SUNDARESAN N (SUND-I)

Inventor: **SUNDARESAN N**

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| US 20030033298 | A1 | 20030213 | US 2000488470 | A | 20000120 | 200337 B |

Priority Applications (No Type Date): US 2000488470 A 20000120

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|----------------|------|--------|-------------|--------------|
| US 20030033298 | A1 | 11 | G06F-007/00 | |

Abstract (Basic): US 20030033298 A1

NOVELTY - An online ranking system (150) indexes received ranking data compiled from an online source, based on interactive criteria. An online ranking repository (170) stores the indexed rating data. A result sorter (140) generates ranked matches by sorting query results generated by the search engine, based on the stored indexed rating data.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) computer program product for ranking search result; and
- (2) search result ranking method.

USE - For search engine.

ADVANTAGE - Enables assessing the quality of the business in terms of interactive criteria such as customer satisfaction, professionalism, and cost and ease of use of products or services. Enhances the ranking quality, by simply providing a cost of count ratings for a business.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the business rating system.

result sorter (140)
online ranking system (150)
online ranking repository (170)
pp; 11 DwgNo 2/4

Title Terms: SEARCH; RESULT; RANK; SYSTEM; SEARCH; ENGINE; RESULT; SORT; GENERATE; RANK; MATCH; SORT; QUERY; RESULT; BASED; RATING; DATA; RANK; REPOSITORY

Derwent Class: T01

International Patent Class (Main): G06F-007/00

File Segment: EPI

1/5/19 (Item 19 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015330246 **Image available**

WPI Acc No: 2003-391181/200337

XRPX Acc No: N03-312431

Automatic and iterative data mining system for identifying a set of related information on the WWW, has pattern identifier that uses document, stored set of relations and new relation from relation identifier for deriving new pattern

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: **SUNDARESAN N** ; YI J

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6505197 | B1 | 20030107 | US 99439379 | A | 19991115 | 200337 B |

Priority Applications (No Type Date): US 99439379 A 19991115

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|-------------|--------------|
| US 6505197 | B1 | 9 | G06F-017/30 | |

Abstract (Basic): US 6505197 B1

NOVELTY - The data mining system (10) has a database (80) for storing a set of previously identified relations and a set of

previously identified patterns. A relation identifier (110) uses a document (di) and the stored set of patterns to derive a new relation. A pattern identifier (110) uses the document, the stored set of relations and the new relation for deriving a new pattern.

DETAILED DESCRIPTION - The set of patterns includes individual patterns, and is expressed by a predetermined condition involving the set of patterns that have been identified by the pattern identifier and the patterns that have been recently identified by the pattern identifier during iteration. INDEPENDENT CLAIMS are also included for the following:

(a) the computer program product for automatically and iteratively mining related terms in a document through relationships and patterns of occurrences; and

(b) the automatic and iterative data mining method.

USE - For identifying a set of related information on the WWW (World Wide Web). For automatic and iterative mining and refinement of patterns and occurrences and relations using duality concept.

ADVANTAGE - Runs in an iterative fashion for continuously and incrementally refining patterns.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the automatic mining system.

Data mining system (10)

Database (80)

Relation identifier (100)

Pattern identifier (110)

Document (di)

pp; 9 DwgNo 2/3

Title Terms: AUTOMATIC; ITERATIVE; DATA; MINE; SYSTEM; IDENTIFY; SET; RELATED; INFORMATION; PATTERN; IDENTIFY; DOCUMENT; STORAGE; SET; RELATED; NEW; RELATED; RELATED; IDENTIFY; DERIVATIVE; NEW; PATTERN

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

1/5/20 (Item 20 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015319320 **Image available**

WPI Acc No: 2003-380255/200336

XRPX Acc No: N03-303664

Remote procedure call implementation system for distributed or parallel processing system, has client and server respectively generating request and response mark-up language document encoded in tokenized format

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: GIRARDOT M G; **SUNDARESAN N**

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| US 20030023628 | A1 | 20030130 | US 2001828542 | A | 20010409 | 200336 B |

Priority Applications (No Type Date): US 2001828542 A 20010409

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|----------------|------|--------|-------------|--------------|
| US 20030023628 | A1 | 24 | G06F-017/24 | |

Abstract (Basic): US 20030023628 A1

NOVELTY - A client generates a request mark-up language document encoded in a tokenized format and transmits to a remote procedure call (RPC) server which has a parser for retrieving method name and associated parameters from the received document. The server upon invoking the received method, receives return parameters, based on which a response mark-up language document is generated in the tokenized format.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) remote procedure call implementation method; and
(2) computer readable medium storing remote procedure call implementation program.

USE - For interprocessor communication and synchronization in distributed or parallel processing system, between systems that are running on different platforms.

ADVANTAGE - Since the request and response documents are formatted into tokens instead of strings, the memory space and bandwidth requirement are reduced.

DESCRIPTION OF DRAWING(S) - The figure shows the API provided between the application program and the document.

pp; 24 DwgNo 3/5

Title Terms: REMOTE; PROCEDURE; CALL; IMPLEMENT; SYSTEM; DISTRIBUTE;
PARALLEL; PROCESS; SYSTEM; CLIENT; SERVE; RESPECTIVE; GENERATE; REQUEST;
RESPOND; MARK; UP; LANGUAGE; DOCUMENT; ENCODE; FORMAT

Derwent Class: T01

International Patent Class (Main): G06F-017/24

International Patent Class (Additional): G06F-015/00; G06F-017/00;
G06F-017/21

File Segment: EPI

1/5/21 (Item 21 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015292268 **Image available**

WPI Acc No: 2003-353201/200333

XRPX Acc No: N03-282126

Electronic book device has processor which displays electronic content stored in storage device using several output modes

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: DUNCAN B; HODAS J S; JACKSON J J; NISSEN W I; **SUNDARESAN N**

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| US 20030013073 | A1 | 20030116 | US 2001829249 | A | 20010409 | 200333 B |

Priority Applications (No Type Date): US 2001829249 A 20010409

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|----------------|------|-----|----|-------------|--------------|
| US 20030013073 | A1 | | 13 | G09B-005/00 | |

Abstract (Basic): US 20030013073 A1

NOVELTY - The electronic book device (10) has a portable housing (12) with a processor which displays electronic content stored in a storage device using several output modes.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) computer program product for displaying electronic content; and

(2) electronic content display method.

USE - Electronic book device.

ADVANTAGE - The electronic book device is used by disabled and non-disabled users.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic diagram of the electronic book.

electronic book device (10)

portable housing (12)

pp; 13 DwgNo 1/6

Title Terms: ELECTRONIC; BOOK; DEVICE; PROCESSOR; DISPLAY; ELECTRONIC;
CONTENT; STORAGE; STORAGE; DEVICE; OUTPUT; MODE

Derwent Class: P85; T01

International Patent Class (Main): G09B-005/00

File Segment: EPI; EngPI

1/5/22 (Item 22 from : 350)
DIALOG(R) File 350:Derwent WPIX
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015291211 **Image available**
WPI Acc No: 2003-352144/200333
XRPX Acc No: N03-281227

Automatic data file rating and filtering method in distributed computer system, involves processing raw file to create semantic units which are compared with specific repository to assign rating vectors

Patent Assignee: INT BUSINESS MACHINES CORP (IBM)

Inventor: EMENS M L; KRAFT R; **SUNDARESAN N**

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6493744 | B1 | 20021210 | US 99374644 | A | 19990816 | 200333 B |

Priority Applications (No Type Date): US 99374644 A 19990816

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|--------------|
| US 6493744 | B1 | | 17 | G06F-015/16 | |

Abstract (Basic): US 6493744 B1

NOVELTY - A raw file (10) is processed to create semantic units which are compared with a repository (14) containing entries and ratings to assign rating vectors to the semantic units. When the file is an audio file, the file is converted to text file using voice recognition software to perform rating. When the file is an image file, a processing software recognizes individual objects and compares them with basic images.

USE - For automatic rating and filtering of raw data file e.g. web page to control accessing of objectionable content in distributed computer system.

ADVANTAGE - Does not require subjective human input after the system is initially devised. The method can be used with any type of data file that can be divided into semantic units, and can be implemented in a server, client, search engine, or proxy server

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of file rating system.

raw file (10)
repository (14)
pp; 17 DwgNo 1/4

Title Terms: AUTOMATIC; DATA; FILE; RATING; FILTER; METHOD; DISTRIBUTE;
COMPUTER; SYSTEM; PROCESS; RAW; FILE; UNIT; COMPARE; SPECIFIC; REPOSITORY
; ASSIGN; RATING; VECTOR

Derwent Class: T01; T04

International Patent Class (Main): G06F-015/16

File Segment: EPI

1/5/23 (Item 23 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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015269107 **Image available**
WPI Acc No: 2003-330036/200331
XRPX Acc No: N03-264145

Application programming interface controls functions calls to enable audio/video file system to record or play audio/video data streams concurrently

Patent Assignee: SONY CORP (SONY)

Inventor: DURUOZ I C; NAKAI K; **SUNDARESAN N**

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| US 20030009605 | A1 | 20030109 | US 2001272863 | P | 20010301 | 200331 B |
| | | | US 20015884 | A | 20011203 | |

Priority Applications (No Type Date): US 2001272863 P 20010301; US 20015884
A 20011203

Patent Details:

| | | | | | |
|----------------|------|-----|----|-------------|---------------------------------------|
| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
| US 20030009605 | A1 | | 13 | G06F-009/46 | Provisional application US 2001272863 |

Abstract (Basic): US 20030009605 A1

NOVELTY - The interface controls the transfer of commands between audio/video (A/V) controller (18) and A/V file system (20) such as LINUX ext2. The function calls of the interface allows the A/V file system to record or play the A/V data streams concurrently.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for communication provision method.

USE - Application programming interface providing transfer of commands between controller and file system.

ADVANTAGE - The interface supports the handling of large and small files, thereby allowing A/V data files and other types of data files to be processed efficiently. Allows several A/V data to be recorded or played concurrently. Improves the performance of random data access. By providing the capability to handle descriptor and A/V files separately disk access is optimized and the retrieval and handling of data is improved.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic functional block diagram of application programming interface.

audio/video controller (18)

audio/video file system (20)

pp; 13 DwgNo 1/1

Title Terms: APPLY; PROGRAM; INTERFACE; CONTROL; FUNCTION; CALL; ENABLE;
AUDIO; VIDEO; FILE; SYSTEM; RECORD; PLAY; AUDIO; VIDEO; DATA; STREAM;
CONCURRENT

Derwent Class: T01

International Patent Class (Main): G06F-009/46

International Patent Class (Additional): G06F-009/00

File Segment: EPI

1/5/24 (Item 24 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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015227769 **Image available**

WPI Acc No: 2003-288682/200328

XRPX Acc No: N03-229513

Backend database systems interoperation method for e-commerce, involves translating XML document from source schema to target schema according to set of mapping rules stored in XML bridge component

Patent Assignee: INT BUSINESS MACHINES CORP (IBM)

Inventor: HARRIS C V; KREULEN J T; KRISHNA V; MCCURLEY K S; ROLLINS S N;

STRONG H R; SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| US 20020194357 | A1 | 20021219 | US 2001882634 | A | 20010615 | 200328 B |

Priority Applications (No Type Date): US 2001882634 A 20010615

Patent Details:

| | | | | | |
|----------------|------|-----|----|-------------|--------------|
| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
| US 20020194357 | A1 | | 14 | G06F-015/16 | |

Abstract (Basic): US 20020194357 A1

NOVELTY - An XML document having data elements with corresponding data values, is translated from a source schema to a target schema using set of mapping rules stored in a central XML bridge component (114). The translated dataset is queued in a persistent storage and is sent to a destination data system.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for backend

database system interoperation system.

USE - For interoperation backend database system for e-commerce.

ADVANTAGE - Provides continuous operation between the backend database system with versatility to handle real life situation.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the bridging system.

XML bridge component (114)

pp; 14 DwgNo 1/7

Title Terms: DATABASE; SYSTEM; METHOD; TRANSLATION; DOCUMENT; SOURCE;

TARGET; ACCORD; SET; MAP; RULE; STORAGE; BRIDGE; COMPONENT

Derwent Class: T01

International Patent Class (Main): G06F-015/16

File Segment: EPI

1/5/25 (Item 25 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015213964 **Image available**

WPI Acc No: 2003-274501/200327

XRFX Acc No: N03-217784

XML document transforming method involves defining rule specifications and document in programming language and executing programs created from rule specifications, during occurrence of document and source pattern match

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6487566 | B1 | 20021126 | US 98166018 | A | 19981005 | 200327 B |

Priority Applications (No Type Date): US 98166018 A 19981005

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 6487566 B1 13 G06F-017/21

Abstract (Basic): US 6487566 B1

NOVELTY - Programs are created from rule specifications which identify that transformations of a XML document is to be performed when a pattern match occurs between the document and a source pattern. The rule specifications and the document are defined in a programming language, the document is defined before and after transformation. The programs are executed to perform document transformations during occurrence of pattern match.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) apparatus for transforming document; and
- (2) article of manufacture for performing document transformation.

USE - For transforming extensible markup language (XML) document into other XML documents for web application.

ADVANTAGE - Enables transformation of document to be performed when pattern match occurs between the document and a source pattern. The method is also applicable with HTML, SGML, NetRexx, Visual Basic script, XML, Perl, C, C++, COBOL, etc.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the client-server hardware for document transformation.

pp; 13 DwgNo 2/3

Title Terms: DOCUMENT; TRANSFORM; METHOD; DEFINE; RULE; SPECIFICATION;

DOCUMENT; PROGRAM; LANGUAGE; EXECUTE; PROGRAM; RULE; SPECIFICATION; OCCUR ; DOCUMENT; SOURCE; PATTERN; MATCH

Derwent Class: T01

International Patent Class (Main): G06F-017/21

File Segment: EPI

1/5/26 (Item 26 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

015205644 **Image available**

WPI Acc No: 2003-266179/200326

XRFX Acc No: N03-211386

Automatic data mining system updates set of terms stored in terms database, by deriving generalizations from terms by using least general generalization model

Patent Assignee: SUNDARESAN N (SUND-I); YI J (YIJJ-I); INT BUSINESS MACHINES CORP (IBMC)

Inventor: SUNDARESAN N ; YI J

Number of Countries: 001 Number of Patents: 002

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|-------------|------|----------|----------|
| US 20020178136 | A1 | 20021128 | US 99440203 | A | 19991115 | 200326 B |
| US 6519602 | B2 | 20030211 | US 99440203 | A | 19991115 | 200326 |

Priority Applications (No Type Date): US 99440203 A 19991115

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|----------------|------|-----|----|-------------|--------------|
| US 20020178136 | A1 | | 11 | G06F-007/00 | |
| US 6519602 | B2 | | | G06F-017/30 | |

US 20020178136 A1 11 G06F-007/00

US 6519602 B2 G06F-017/30

Abstract (Basic): US 20020178136 A1

NOVELTY - An augmentation module updates set of terms stored in a terms database, by deriving generalizations from the terms by using a least general generalization (LGG) model. A generalization detection module maps the derived generalizations and updates a set of edges, to derive generalization hierarchy that is stored in a hierarchy database.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) computer program product for automatic construction of generalization hierarchy of terms; and

(2) method for automatic construction of generalization hierarchy of terms.

USE - For automatic construction of generalization of hierarchy of terms from terms database including text database of unstructured information such as world wide web (WWW).

ADVANTAGE - Enables automatic and iterative recognition of relevant terms by association mining and refinement of co-occurrences.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic illustration of an exemplary operating environment utilizing automatic mining system.

pp; 11 DwgNo 1/4

Title Terms: AUTOMATIC; DATA; MINE; SYSTEM; UPDATE; SET; TERM; STORAGE;

TERM; DATABASE; DERIVATIVE; TERM; GENERAL; MODEL

Derwent Class: T01

International Patent Class (Main): G06F-007/00; G06F-017/30

File Segment: EPI

1/5/27 (Item 27 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

015138897 **Image available**

WPI Acc No: 2003-199423/200319

XRFX Acc No: N03-158630

Hyperlink document determination method in Internet, involves identifying documents with highest value of authority weight as authorities of specific topic

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: HUANG A W; SUNDARESAN N

Number of Countries: 001 Number of Patents: 002

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|-----------|------|------|-------------|------|------|------|
|-----------|------|------|-------------|------|------|------|

US 20020169800 A1 20021111 US 2001754257 A 20010105 0319 B
US 6778997 B2 20040817 US 2001754257 A 20010105 200454

Priority Applications (No Type Date): US 2001754257 A 20010105

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|----------------|------|-----|----|-------------|--------------|
| US 20020169800 | A1 | | 15 | G06F-007/00 | |
| US 6778997 | B2 | | | G06F-017/30 | |

Abstract (Basic): US 20020169800 A1

NOVELTY - Authority weight and hub weight of each document of base set are set corresponding to their structure scores. The authority weight is updated corresponding to the sum of hub weights while hub weights are updated corresponding to the sum of authority weight within the base set. A prescribed number of documents with highest value of authority weight are identified as authorities on a specific topic.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Web page location method;
- (2) World wide web searching method; and
- (3) Article of manufacture comprising of medium storing computer readable program to locate web pages.

USE.- Used for determining groups of hyperlinked documents in internet and also in local area network (LAN).

ADVANTAGE - Document with highest authority weights are identified as strongest authority on query topic easily and effectively.

DESCRIPTION OF DRAWING(S) - The figure shows the overall algorithm of structure based determination of authoritative pages.

pp; 15 DwgNo 5/6

Title Terms: DOCUMENT; DETERMINE; METHOD; IDENTIFY; DOCUMENT; HIGH; VALUE; AUTHORISE; WEIGHT; SPECIFIC; TOPIC

Derwent Class: T01

International Patent Class (Main): G06F-007/00; G06F-017/30

File Segment: EPI

1/5/28 (Item 28 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

015136521 **Image available**

WPI Acc No: 2003-197047/200319

XRPX Acc No.: N03-156340

Extensible markup language document transforming method through Internet, involves identifying annotations specified in prescribed name space within XML document, using dynamic processor

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: LEE S B; SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6480865 | B1 | 20021112 | US 98166042 | A | 19981005 | 200319 B |

Priority Applications (No Type Date): US 98166042 A 19981005

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|--------------|
| US 6480865 | B1 | | 11 | G06F-017/21 | |

Abstract (Basic): US 6480865 B1

NOVELTY - The annotations specified in a name space within the document, are identified by a dynamic processor in a computer. The Java class specifications and objects comprising the functions corresponding to the identified annotations are invoked for transforming the XML document to be processed by the XML processor.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) XML document transform apparatus; and

(2) Computer-readable medium storing program for transforming XML document.

USE - For transforming XML document for Internet applications.

ADVANTAGE - Enables the XML processor to recognize the elements that are tagged with dynamic XML-Java (DXMLJ) and prefix tags, easily and efficiently, for improving the transforming efficiency of the XML document.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart explaining XML document transforming process.

pp; 11 DwgNo 2/2

Title Terms: EXTEND; LANGUAGE; DOCUMENT; TRANSFORM; METHOD; THROUGH; IDENTIFY; SPECIFIED; PRESCRIBED; NAME; SPACE; DOCUMENT; DYNAMIC; PROCESSOR

Derwent Class: T01

International Patent Class (Main): G06F-017/21

File Segment: EPI

1/5/29 (Item 29 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

015005837 **Image available**

WPI Acc No: 2003-066354/200306

XRPX Acc No: N03-051416

Computer-based remote device control method e.g. for refrigerator, involves displaying live digital image of remote location associated with remote device on web browser of computer

Patent Assignee: INT BUSINESS MACHINES CORP (IBM)

Inventor: EMENS M L; KRAFT R; SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6463343 | B1 | 20021008 | US 99371739 | A | 19990810 | 200306 B |

Priority Applications (No Type Date): US 99371739 A 19990810

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|-------------|--------------|
| US 6463343 | B1 | 19 | G05B-019/42 | |

Abstract (Basic): US 6463343 B1

NOVELTY - A live digital image of a remote location associated with a remote device, is displayed on a web browser of a computer. A selected area is mapped to a control function for the remote device and the function is invoked through the selected area.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) Remote device controlling system; and

(2) Article of manufacture comprising recorded medium storing remote device control program.

USE - For controlling remote device such as central heater, oven, microwave, refrigerator, etc., using client computer such as PC or workstation connected to server through network such as Internet, LAN, WAN, etc.

ADVANTAGE - The live digital image provides a very natural user interface which allows a user to control the remote devices easily and effectively.

DESCRIPTION OF DRAWING(S) - The figure shows the graphical user interface.

pp; 19 DwgNo 2D/3

Title Terms: COMPUTER; BASED; REMOTE; DEVICE; CONTROL; METHOD; REFRIGERATE; DISPLAY; LIVE; DIGITAL; IMAGE; REMOTE; LOCATE; ASSOCIATE; REMOTE; DEVICE; WEB; COMPUTER

Derwent Class: T01; W05

International Patent Class (Main): G05B-019/42

File Segment: EPI

1/5/30 (Item 30 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

014968651 **Image available**
WPI Acc No: 2003-029165/200302
XRPX Acc No: N03-023003

Web content transcoding method involves retrieving transcoding rule corresponding to transactional domain of received web page, using which data is extracted from web page

Patent Assignee: HUANG A W (HUAN-I); SUNDARESAN N (SUND-I)

Inventor: HUANG A W; SUNDARESAN N

Number of Countries: 001 Number of Patents: 001,

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| US 20020133569 | A1 | 20020919 | US 2001798246 | A | 20010303 | 200302 B |

Priority Applications (No Type Date): US 2001798246 A 20010303

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|----------------|------|--------|-------------|--------------|
| US 20020133569 | A1 | 13 | G06F-015/16 | |

Abstract (Basic): US 20020133569 A1

NOVELTY - A set of transcoding rules related to each web page transactional domain is defined. A requested web page is received for enabling transactions in one of the transactional domains. The transcoding rule corresponding to the transactional domain of the received web page is retrieved. Data is extracted from the web page using the retrieved rule.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Web content transcoding system; and
- (2) Computer program product storing program for transcoding web pages.

USE - For transcoding web content to enable access to web services.

ADVANTAGE - The web-based transactions can be performed by a variety of client devices including portable, wireless and voice-based devices.

DESCRIPTION OF DRAWING(S) - The figure shows the three XML link node data structures constructed from the data in a downloaded web page.

pp; 13 DwgNo 6/6

Title Terms: WEB; CONTENT; TRANSCODER; METHOD; RETRIEVAL; TRANSCODER; RULE;

CORRESPOND; DOMAIN; RECEIVE; WEB; PAGE; DATA; EXTRACT; WEB; PAGE

Derwent Class: T01

International Patent Class (Main): G06F-015/16

File Segment: EPI

1/5/31 (Item 31 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

014877710 **Image available**
WPI Acc No: 2002-698416/200275
XRPX Acc No: N02-550814

Web navigation assistance method in dynamic browsing environment, involves transmitting miniature images to remote terminal during navigation of associated hyperlinks

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: HUANG A W; SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| US 20020129114 | A1 | 20020912 | US 2001799697 | A | 20010307 | 200275 B |

Priority Applications (No Type Date): US 2001799697 A 20010307

Patent Details:

| | | | | | |
|----------------|------|----|-------------|----------|--------------|
| Patent No | Kind | Ln | Pg | Main IPC | Filing Notes |
| US 20020129114 | A1 | 12 | G06F-015/16 | | |

Abstract (Basic): US 20020129114 A1

NOVELTY - A request received from a remote terminal, is processed and the requested web pages are downloaded. The miniature images are captured from the downloaded web pages and are stored along with their associated hyperlinks. The miniature images are transmitted to the remote terminal, during web navigation of associated hyperlinks.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Thumbnail views previewing and storing method;
- (2) Hyperlinks previewing system; and
- (3) Thumbnail views previewing system.

USE - For assisting a user during web navigation in dynamic browsing environment.

ADVANTAGE - Presents previews of previously visited hyperlinks to the user and enables the user to view the contents of the page without actually having to visit the page, by returning miniature images to remote terminal during web navigation of associated hyperlinks.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart explaining the steps of storing and previewing visited hyperlinks.

pp; 12 DwgNo 2/5

Title Terms: WEB; NAVIGATION; ASSIST; METHOD; DYNAMIC; ENVIRONMENT;

TRANSMIT; MINIATURE; IMAGE; REMOTE; TERMINAL; NAVIGATION; ASSOCIATE

Derwent Class: T01

International Patent Class (Main): G06F-015/16

International Patent Class (Additional): G06F-015/167; G06F-015/173

File Segment: EPI

1/5/32 (Item 32 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014877699 **Image available**

WPI Acc No: 2002-698405/200275

XRPX Acc No: N02-550803

Customizable interface generation method for XML documents, involves passing components implementing specific input/output modes generated from XML schema and user customization rules, to rendering system

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: ROLLINS S N; SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| US 20020129060 | A1 | 20020912 | US 2001799698 | A | 20010307 | 200275 B |

Priority Applications (No Type Date): US 2001799698 A 20010307

Patent Details:

| | | | | | |
|----------------|------|----|-------------|----------|--------------|
| Patent No | Kind | Ln | Pg | Main IPC | Filing Notes |
| US 20020129060 | A1 | 18 | G06F-015/00 | | |

Abstract (Basic): US 20020129060 A1

NOVELTY - A set of components that implement specific input and output modes, are generated through code generation from analyzed XML schema and user customization rules. The generated components are passed to a rendering system (412) that uses the input and output modes of the components to navigate and modify an XML document (410).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Customizable interface generation system; and
- (2) Article of manufacture comprising medium storing XML document customizable interface generation program.

USE - For generating multiple customizable interface for XML document used for Internet, LAN, WAN, WWW, cellular, satellite, virtual applications, etc.

ADVANTAGE - Allows users to access XML data inspite of input/output restrictions, by providing an intuitive method for interacting with the XML data and also allows users to customize interface according to his/her preference.

DESCRIPTION OF DRAWING(S) - The figure shows a detailed overview of the customizable interface generation system.

XML document (410)

Rendering system (412)

pp; 18 DwgNo 4/13

Title Terms: INTERFACE; GENERATE; METHOD; DOCUMENT; PASS; COMPONENT;

IMPLEMENT; SPECIFIC; INPUT; OUTPUT; MODE; GENERATE; USER; CUSTOMISATION;

RULE; RENDER; SYSTEM

Derwent Class: T01

International Patent Class (Main): G06F-015/00

File Segment: EPI

1/5/33 (Item 33 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014697437 .. **Image available**

WPI Acc No: 2002-518141/200255

SRPX Acc No: N02-410032

Network browsing method involves displaying retrieved pages in frames displayed in single window, in response to user command received by computer

Patent Assignee: SHARMA N (SHAR-I); SUNDARESAN N (SUND-I)

Inventor: SHARMA N; SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|-------------|------|----------|----------|
| US 20020054052 | A1 | 20020509 | US 99225955 | A | 19990106 | 200255 B |

Priority Applications (No Type Date): US 99225955 A 19990106

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|----------------|------|--------|-------------|--------------|
| US 20020054052 | A1 | 8 | G06F-013/00 | |

Abstract (Basic): US 20020054052 A1

NOVELTY - The frames are displayed in a window, in response to a user command received by a computer. Each of the pages retrieved from a server, are displayed in respective frames.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Network browsing apparatus; and
- (2) Article of manufacture comprising computer readable medium storing network browsing program.

USE - For browsing network.

ADVANTAGE - Prevents the problems of displaying multiple pages retrieved from Internet, through the use of multiple frames displayed in single window.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart illustrating the steps for browsing network.

pp; 8 DwgNo 3/3

Title Terms: NETWORK; METHOD; DISPLAY; RETRIEVAL; PAGE; FRAME; DISPLAY;

SINGLE; WINDOW; RESPOND; USER; COMMAND; RECEIVE; COMPUTER

Derwent Class: T01

International Patent Class (Main): G06F-013/00

File Segment: EPI

1/5/34 (Item 34 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014685916 **Image available**

WPI Acc No: 2002-506620/200254

XRPX Acc No: N02-400796

Automatic data mining system in Internet, derives specific pattern using patterns defining format in which acronym and expansion occur in document

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: SUNDARESAN N ; YI J

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6385629 | B1 | 20020507 | US 99440625 | A | 19991115 | 200254 B |

Priority Applications (No Type Date): US 99440625 A 19991115

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|-------------|--------------|
| US 6385629 | B1 | 12 | G06F-015/00 | |

Abstract (Basic): US 6385629 B1

NOVELTY - A database stores previously identified acronym expansion pairs R(i-1), formation rules E(i-1) and patterns P(i-1) defining a format in which acronym and expansion occur in a document di. The patterns P(i-1) are expressed in the format (acronym prefix, acronym suffix, expansion prefix, formation rule, expansion suffix) using which a pattern Pi is derived.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) Automatic and iterative data mining method;

(2) Computer program product for automatically and iteratively mining acronyms and expansions in a document.

USE - For identifying acronym and expansion pairs in a document distributed through Internet.

ADVANTAGE - Enables reliable identification of acronym and expansion pairs, by using prestored patterns.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart illustrating operation of the automatic data mining system.

pp; 12 DwgNo 3/4

Title Terms: AUTOMATIC; DATA; MINE; SYSTEM; DERIVATIVE; SPECIFIC; PATTERN;

PATTERN; DEFINE; FORMAT; EXPAND; OCCUR; DOCUMENT

Derwent Class: T01

International Patent Class (Main): G06F-015/00

International Patent Class (Additional): G06F-017/30

File Segment: EPI

1/5/35 (Item 35 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014412897 **Image available**

WPI Acc No: 2002-233600/200229

XRPX Acc No: N02-179985

Trading method using e-commerce application in Internet, involves enabling advertiser to evaluate each economical purchasing value with respect to user, based on user's individual profile

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC); IBM CORP (IBMC)

Inventor: ASHOUR G; SUNDARESAN N

Number of Countries: 004 Number of Patents: 004

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|---------------|------|----------|---------------|------|----------|----------|
| JP 2002056306 | A | 20020220 | JP 2001224095 | A | 20010725 | 200229 B |
| CA 2353027 | A1 | 20020127 | CA 2353027 | A | 20010712 | 200230 |
| CN 1335577 | A | 20020213 | CN 2001123241 | A | 20010723 | 200233 |
| SG 105502 | A1 | 20040827 | SG 20014415 | A | 20010719 | 200461 |

Priority Applications (No Type Date): US 2000626703 A 20000727

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|---------------|------|-----|----|-------------|--------------|
| JP 2002056306 | A | | 13 | G06F-017/60 | |
| CA 2353027 | A1 | E | | H04L-012/16 | |
| CN 1335577 | A | | | G06F-017/60 | |
| SG 105502 | A1 | | | G06F-017/60 | |

Abstract (Basic): JP 2002056306 A

NOVELTY - Individual profile of one or more users, regarding their recognized interest, needs etc., is collected. Based on the individual profile, advertiser evaluates each economical purchasing value with respect to user.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for trading system using e-commerce.

USE - For trading using e-commerce application in Internet.

ADVANTAGE - Improves e-commerce transactions, by creating individuality of content and performing advertisement of webpage, browsed by specific customer, in specific session.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of high level architecture of path tracing system. (Drawing includes non-English language text).

pp; 13 DwgNo 2/4

Title Terms: TRADE; METHOD; APPLY; ENABLE; EVALUATE; ECONOMY; PURCHASE; VALUE; RESPECT; USER; BASED; USER; INDIVIDUAL; PROFILE

Derwent Class: T01

International Patent Class (Main): G06F-017/60; H04L-012/16

File Segment: EPI

1/5/36 (Item 36 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014122522 **Image available**

WPI Acc No: 2001-606734/200169

XRPX Acc No: N01-452847

Automatically generated rated search result page provision method in internet, involves deriving composite content rating vector from content rating vectors and storing in raw search result page

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: EMENS M L; KRAFT R; SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6295559 | B1 | 20010925 | US 99384294 | A | 19990826 | 200169 B |

Priority Applications (No Type Date): US 99384294 A 19990826

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|--------------|--------------|
| US 6295559 | B1 | | 12 | G06F-015/173 | |

Abstract (Basic): US 6295559 B1

NOVELTY - A raw search result page is automatically generated from search query of client, and content rating vectors are obtained from the page. A composite content rating vector is derived from the content rating vectors, and stored in raw search result page to produce rated search result page. The rated search result page is transmitted over computer network to the client.

USE - For providing automatically rated search result page to client through internet.

ADVANTAGE - The rated search result page is efficiently produced by storing composite content rating vector which is derived from content rating vectors in raw search result page.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of automatically generated rated search result page provision method for rating search result page.

pp; 12 DwgNo 2/8

Title Terms: AUTOMATIC; GENERATE; RATE; SEARCH; RESULT; PAGE PROVISION;
METHOD; DERIVATIVE; COMPOSITE; CONTENT; RATING; VECTOR; CONTENT; RATING;
VECTOR; STORAGE; RAW; SEARCH; RESULT; PAGE
Derwent Class: T01
International Patent Class (Main): G06F-015/173
File Segment: EPI

1/5/37 (Item 37 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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014104792 **Image available**
WPI Acc No: 2001-589006/200166
XRPX Acc No: N01-438658

User program level thread execution scheduling method for computer systems, involves modifying one or more thread scheduling characteristics during thread execution

Patent Assignee: INT BUSINESS MACHINES CORP (IBM)

Inventor: SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6289369 | B1 | 20010911 | US 98140129 | A | 19980825 | 200166 B |

Priority Applications (No Type Date): US 98140129 A 19980825

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|-------------|--------------|
| US 6289369 | B1 | 15 | G06F-009/00 | |

Abstract (Basic): US 6289369 B1

NOVELTY - A thread (22) is created on the computer memory. The execution of the thread is scheduled in accordance with a pre-specified scheduling characteristics of the thread. One or more of the scheduling characteristics of the thread are modified during the execution of the thread.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Multi-thread computer system;
- (b) Carrier embodying logic for scheduling thread execution in one or more processors

USE - For maintaining affinity, locality and load balancing in scheduling user program level threads for execution by computer system.

ADVANTAGE - The scheduling and context switching of the threads are made faster by presence of the central schedule queue and the pre-processor local schedule queues.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram illustrating the exemplary software environment.

Thread (22)

pp; 15 DwgNo 2/5

Title Terms: USER; PROGRAM; LEVEL; THREAD; EXECUTE; SCHEDULE; METHOD;
COMPUTER; SYSTEM; MODIFIED; ONE; MORE; THREAD; SCHEDULE; CHARACTERISTIC;
THREAD; EXECUTE

Derwent Class: T01

International Patent Class (Main): G06F-009/00

File Segment: EPI

1/5/38 (Item 38 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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014056180 **Image available**
WPI Acc No: 2001-540393/200160
XRPX Acc No: N01-401525

Network browsing method for categorizing bookmarks, involves saving

property of identified page as bookmark, based on similarity between
properties of identified page and other page

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: SHARMA N; SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6275862 | B1 | 20010814 | US 99225958 | A | 19990106 | 200160 B |

Priority Applications (No Type Date): US 99225958 A 19990106

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|--------------|
| US 6275862 | B1 | | 9 | G06F-017/30 | |

Abstract (Basic): US 6275862 B1

NOVELTY - A property of identified page is compared with property of other page stored as bookmark by browser. The property of identified page is saved as bookmark, when the property of identified page and property of stored page are similar.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for apparatus for browsing a network.

USE - For categorizing the bookmarks.

ADVANTAGE - Since the existing software system need not be changed for implementing web browser, cost reduction is achieved. Since the bookmarks are categorized, the web pages are efficiently organized.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart for network browsing method.

pp; 9 DwgNo 3/3

Title Terms: NETWORK; METHOD; SAVE; PROPERTIES; IDENTIFY; PAGE; BASED; SIMILAR; PROPERTIES; IDENTIFY; PAGE; PAGE

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

1/5/39 (Item 39 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013889501 **Image available**

WPI Acc No: 2001-373714/200139

XRPX Acc No: N01-273380

Non-future function pointer converting method for computer system, involves passing non-future function pointer to constructor of function template class instance, using adapter, to obtain future function object of future type

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6237134 | B1 | 20010522 | US 97815231 | A | 19970312 | 200139 B |

Priority Applications (No Type Date): US 97815231 A 19970312

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|--------------|--------------|
| US 6237134 | B1 | | 15 | G06F-009/445 | |

Abstract (Basic): US 6237134 B1

NOVELTY - A function object having a type of future type and which is convertible from future type to result type, is stored in a memory. A non-future function pointer of Nth order that accepts N-parameters and having type other than future type, is stored in the memory. The non-future function pointer is converted into future function object having future type, by passing the non-future function pointer to a constructor of function template class instance, using the adaptors and the future function object is stored in the memory.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Computer system;
- (b) Recording medium

USE - For generic programming and parallel programming for converting from non-future function pointer to future function object for computer system.

ADVANTAGE - The future executing method provides improved parallelization of sequential code and also improves the expressibility of parallel code. The reuse of sequential code and parallel code is improved.

DESCRIPTION OF DRAWING(S) - The figure shows the execution graph of example user code.

pp; 15 DwgNo 6/9

Title Terms: NON; FUTURE; FUNCTION; POINT; CONVERT; METHOD; COMPUTER; SYSTEM; PASS; NON; FUTURE; FUNCTION; POINT; CONSTRUCTION; FUNCTION; TEMPLATE; CLASS; INSTANCE; OBTAIN; FUTURE; FUNCTION; OBJECT; FUTURE; TYPE
Derwent Class: T01
International Patent Class (Main): G06F-009/445
File Segment: EPI

1/5/40 (Item 40 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013869321 **Image available**

WPI Acc No: 2001-353533/200137

Related WPI Acc No: 2004-591175

XRPX Acc No: N01-256685

Communication establishment between independently executing autonomous agent involves using lower message facility and lower mail facility layers independently of upper agent management communication facility layer

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: CHANG D T; SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6226666 | B1 | 20010501 | US 97884457 | A | 19970627 | 200137 B |

Priority Applications (No Type Date): US 97884457 A 19970627

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|-------------|--------------|
| US 6226666 | B1 | 46 | G06F-015/16 | |

Abstract (Basic): US 6226666 B1

NOVELTY - An agent management communication facility layer (230) which manages agents by locating, dispatching and retrieving agents uses and depends upon a lower message facility and lower mail facility layers. The message facility layer (220) which provides asynchronous and synchronous communication of messages, uses and depends upon lower message facility layer. The lower message facility layer and lower mail facility layer are used independently of upper agent management communication facility layer.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Recording medium;
- (b) Distributed computer system

USE - For establishing communication between independently executing autonomous agents for distributed computer system.

ADVANTAGE - Provides flexible, robust underlying communication infrastructure for agent systems for communication between agents, and agent hosting servers. Allows implementations of various abstractions to be easily built on top of mail facility layer and facilitating multiple protocol implementation through mail facility layer. Allows various messaging paradigms to support distributed objects and agent

mobility.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of agent communication infrastructure.

Message facility layer (220)

Agent management communication facility layer (230)

pp; 46 DwgNo 2/28

Title Terms: COMMUNICATE; ESTABLISH; INDEPENDENT; EXECUTE; AUTONOMOUS;
AGENT; LOWER; MESSAGE; FACILITY; LOWER; MAIL; FACILITY; LAYER;
INDEPENDENT; UPPER; AGENT; MANAGEMENT; COMMUNICATE; FACILITY; LAYER

Derwent Class: T01

International Patent Class (Main): G06F-015/16

International Patent Class (Additional): G06F-015/167

File Segment: EPI

1/5/41 (Item 41 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013477192 **Image available**

WPI Acc No: 2000-649135/200063

XRPX Acc No: N00-481285

**Automatically generating computer language grammars in browsable form,
using grammar specification to identify structure of input grammar, and
generating marked-up grammar as browsable representation of input grammar**

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: SUNDARESAN N

Number of Countries: 002 Number of Patents: 002

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| GB 2348522 | A | 20001004 | GB 9926107 | A | 19991105 | 200063 B |
| US 6336214 | B1 | 20020101 | US 98189245 | A | 19981110 | 200207 |

Priority Applications (No Type Date): US 98189245 A 19981110

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

GB 2348522 A 16 G06F-017/21

US 6336214 B1 G06F-009/45

Abstract (Basic): GB 2348522 A

NOVELTY - The method for automatically generating browsable language grammars involves using a grammar specification which is used to identify the structure of an input grammar, such that a specification pre-processor, grammar parser and grammar generator work to generate a marked up grammar that is a browsable representation of the input grammar.

DETAILED DESCRIPTION - The method for automatically generating computer language grammars in browsable form involves specifying a format of an input grammar in a computer, parsing the input grammar in the computer based on a specified format, and generating a marked-up document in the computer from the parsed input grammar. INDEPENDENT CLAIMS are included for; a computer system for automatically generating computer language grammars in browsable form; a computer program for carrying out the method of the invention.

USE - Automatically generating browsable language grammars.

ADVANTAGE - Automatically marks-up grammar production rules in manner that enhances readability and accessibility.

DESCRIPTION OF DRAWING(S) - The drawing shows a block diagram of a client-server computer environment including a system according to the invention.

Network (100)

Client systems (102)

Server computer (104)

Specification pre-processor (106)

Grammar.spec (108)

Grammar parser (110)

Input grammar (112)

Grammar generator (1)
Marked-up grammar (116)
pp; 16 DwgNo 1/3

Title Terms: AUTOMATIC; GENERATE; COMPUTER; LANGUAGE; FORM; GRAMMAR;
SPECIFICATION; IDENTIFY; STRUCTURE; INPUT; GRAMMAR; GENERATE; MARK; UP;
GRAMMAR; REPRESENT; INPUT; GRAMMAR

Derwent Class: T01

International Patent Class (Main): G06F-009/45; G06F-017/21

File Segment: EPI

1/5/42 (Item 42 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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012866190 **Image available**

WPI Acc No: 2000-038023/200003

XRPX Acc No: N00-028666

**Data structure stored in computer memory for representing reduction
computation pattern**

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: SUNDARESAN N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 5991764 | A | 19991123 | US 97815234 | A | 19970312 | 200003 B |

Priority Applications (No Type Date): US 97815234 A 19970312

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|--------------|
| US 5991764 | A | | 17 | G06F-015/63 | |

Abstract (Basic): US 5991764 A

NOVELTY - A data structure defining fan-in tree computation pattern, consists of fan-in size field and fan-in node object. The fan-in size field stores size and pattern of fan-in in computer memory. The node object has at least zero and at most fan-in size child nodes and fields where each field corresponding to child node stores indication about whether a thread has arrived at fan-in synchronization point.

DETAILED DESCRIPTION - The thread corresponds to field and its corresponding child node. Another data structure, defining fan-out tree computation pattern consisting of fan-out size field and fan-out node output, are stored in memory.

USE - For representing reduction computation pattern for reduction operation performed by computer system.

ADVANTAGE - Reduction computation pattern is provided which is independent of data types of values contributed to reduction computation. Reduction computation pattern that is independent of types of reduction operator of reduction computation is obtained. Reduction tree skeleton and reduction computation pattern can be reusable for different types of operators. The fan-in and fan-out patterns of the pattern can be different and data structure can be specified accordingly.

DESCRIPTION OF DRAWING(S) - The figure shows the data structure stored in computer memory.

pp; 17 DwgNo 9/9

Title Terms: DATA; STRUCTURE; STORAGE; COMPUTER; MEMORY; REPRESENT; REDUCE;
COMPUTATION; PATTERN

Derwent Class: T01

International Patent Class (Main): G06F-015/63

File Segment: EPI

1/5/43 (Item 43 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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012841051 **Image available**

WPI Acc No: 2000-012883/200001

XRPX Acc No: N00-009995

**Generic adaptor for converting sequential iterator to parallel iterator
for use in computer system**

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: **SUNDARESAN N**

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 5987255 | A | 19991116 | US 97820394 | A | 19970312 | 200001 B |

Priority Applications (No Type Date): US 97820394 A 19970312

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|-------------|--------------|
| US 5987255 | A | 16 | G06F-009/44 | |

Abstract (Basic): US 5987255 A

NOVELTY - The strategy is a member of set including block strategy, cyclic strategy, grab strategy and a user-defined strategy. The template function provides an operator with strategy tag parameter indicating strategy specific implementation for converting sequential iterators (120,130,140) to multiple parallel iterators (372,374,376).

DETAILED DESCRIPTION - An adaptor which is a template function having a template parameter representing the strategy performs the conversion based on a parallel work distribution strategy.

USE - For converting sequential iterator to parallel iterator for parallelization of sequential algorithms.

ADVANTAGE - Provides improved parallelization of sequential code. Improves expressibility and maintenance of parallel code. Improves reuse of sequential code and parallel code using generic adaptor.

DESCRIPTION OF DRAWING(S) - The figure shows the parallel algorithm implementation using per thread parallel iterators.

Sequential iterators (120,130,140)

Parallel iterators (372,374,376)

pp; 16 DwgNo 3/12

Title Terms: ADAPT; CONVERT; SEQUENCE; PARALLEL; COMPUTER; SYSTEM

Derwent Class: T01

International Patent Class (Main): G06F-009/44

File Segment: EPI

1/5/44 (Item 44 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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012651679 **Image available**

WPI Acc No: 1999-457784/199938

XRPX Acc No: N99-342429

**Generic reduction operation providing method for execution by processor
during parallel processing**

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: **SUNDARESAN N**

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 5937194 | A | 19990810 | US 97820393 | A | 19970312 | 199938 B |

Priority Applications (No Type Date): US 97820393 A 19970312

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|-------------|--------------|
| US 5937194 | A | 17 | G06F-009/45 | |

Abstract (Basic): US 5937194 A

NOVELTY - Reduction operation template class consisting of exported definition of reduction operation type, reduction operation result type

as well as constructor which uses reduction object as argument is provided along with reduction tree class. Each thread of rope performs reduction operation accordingly.

DETAILED DESCRIPTION - Reduction operation template class is parametrized based on type of reduction and reduction result while providing template class. Reduction tree class defines reduction computing pattern skeleton consisting of fan-out and fan-in trees which define broadcast and reduction patterns for reducing values respectively. During reduction, reduction tree skeleton and member of reduction tree class corresponding to rope is obtained, type specific reduction object for each reduction result data type is created and member operator of template class object for each reduction operation type is invoked. INDEPENDENT CLAIMS are also included for the following:

- (a) computer system providing reduction operation;
- (b) computer readable memory medium which stores reduction operation providing program

USE - For parallel programming and generic programming.

ADVANTAGE - Multithread operation is provided and reduction operations can be interleaved across rope operations. Same reduction skeleton can be used for all reduction operations within rope and allows generated type specific reduction object to be used for reduction operation of same type. Reduction computation pattern is independent of reduction operation type. Reduction skeleton tree and reduction computation pattern are reusable for different reduction operators. Reduction computation pattern with different fan-in and fan-out pattern is provided. Expressibility and maintenance of parallel code is improved. Sequential and parallel code can be reused.

DESCRIPTION OF DRAWING(S) - The figure shows the parallel execution graph of type specific reduction.

pp; 17 DwgNo 6/9

Title Terms: REDUCE; OPERATE; METHOD; EXECUTE; PROCESSOR; PARALLEL; PROCESS

Derwent Class: T01

International Patent Class (Main): G06F-009/45

File Segment: EPI

| Set | Items | Description |
|------|---|---|
| S1 | 853771 | AUTOMATIC? OR INSTINCTIVE? OR SPONTANEOUS? OR INVOLUNTARY? OR IMPULSIVE? |
| S2 | 8016382 | GENERAT? OR REPRODUC? OR CREATE OR CREATING OR PRODUC? |
| S3 | 10060811 | DYNAMIC? OR LIVE? OR INSTANT? OR REALTIME OR REAL()TIME OR PRESENT? OR CURRENT? OR IMMEDIATE? OR ON()FLY |
| S4 | 3906469 | ABSTRACT? OR ABRIDGMENT? OR BRIEF? OR CONDENSATION OR SYNO- PSIS |
| S5 | 50767 | CRAWLER? OR (INTERNET OR WEB OR SOFTWARE) () (AGENT? OR ROBO- T?) OR SPIDER? OR SPYDER? OR INTELLIGENT()AGENT? OR SOFTBOT? - OR IA OR BOT OR BOTS |
| S6 | 5 | CRAWLING(N) (DOCUMENT? OR FILE? OR TEXT? ? OR RECORD? ? OR - REPORT? ? OR BRIEF? ? OR INFORMATION) |
| S7 | 10715 | METADATA OR META()DATA |
| S8 | 12452 | (LINK? OR CONNECT? OR INTERFACE? OR JOIN? OR UNITE?) () (DATA OR INFORMATION) |
| S9 | 1365341 | CACHE? OR REGISTER OR MEMORY OR STORAGE OR BUFFER? OR REPO- SITORY |
| S10 | 774371 | SAVE? ? OR SAVING OR STORE OR STORING OR KEEP OR KEEPING OR PRESERV? |
| S11 | 4123564 | ACQUIRE? OR GET OR RETRIEVE? OR OBTAIN? OR PROCURE? OR CALL OR FETCH? |
| S12 | 12594917 | ENGINE? OR MODULE? ? OR ENGINE? OR COMPONENT? ? OR ELEMENT? ? OR ROUTINE? OR APPLICATION? OR PROGRAM? OR DATABASE? OR DA- TA()BASE? |
| S13 | 695063 | INDEXING OR INDEX OR INDEXES OR INDICES |
| S14 | 1046 | S1 AND S2 AND (S3 (2N) S4) |
| S15 | 4 | S5 AND S6 |
| S16 | 0 | S5 AND S11 AND (S7 (3N) S8) |
| S17 | 1069 | S5 AND S11 AND (LINK? OR CONNECT? OR INTERFACE? OR JOIN? OR UNITE?) |
| S18 | 8 | S17 AND S7 |
| S19 | 1 | S9 AND S8 AND S10 AND S5 |
| S20 | 24 | (S4 (2N) S12) AND S2 AND S4 AND S7 |
| S21 | 3 | (S12 (2N) S13) AND S13 AND S7 AND S8 |
| S22 | 6 | S12 AND S13 AND S7 AND S8 |
| S23 | 53 | S3 AND S7 AND S8 |
| S24 | 87175 | (SEARCH? OR QUEST? OR PURSU? OR SEEK? OR QUER? OR MATCH?) (- 2N) S12 |
| S25 | 0 | S23 AND (CONTAIN? OR INCLUDE? OR HOLD? OR ENCLOSE? OR WRAP- ?) AND NEW()S8 |
| S26 | 53 | S23 AND S8 |
| S27 | 2918 | S1 AND S2 AND (SEARCH? OR QUEST? OR PURSU? OR SEEK? OR QUE- R? OR MATCH?) AND S4 |
| S28 | 19 | S27 AND S5 |
| S29 | 112 | S15 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S26 OR S28 |
| S30 | 66 | S29 NOT PY>2000 |
| S31 | 63 | S30 NOT PD>20000211 |
| S32 | 56 | RD (unique items) |
| File | 8: Ei Compendex(R) 1970-2004/Oct W5 | (c) 2004 Elsevier Eng. Info. Inc. |
| File | 35: Dissertation Abs Online 1861-2004/Oct | (c) 2004 ProQuest Info&Learning |
| File | 103: Energy SciTec 1974-2004/Oct B2 | (c) 2004 Contains copyrighted material |
| File | 202: Info. Sci. & Tech. Abs. 1966-2004/Nov 02 | (c) 2004 EBSCO Publishing |
| File | 65: Inside Conferences 1993-2004/Nov W1 | (c) 2004 BLDSC all rts. reserv. |
| File | 2: INSPEC 1969-2004/Oct W5 | (c) 2004 Institution of Electrical Engineers |
| File | 233: Internet & Personal Comp. Abs. 1981-2003/Sep | (c) 2003 EBSCO Pub. |
| File | 94: JICST-EPlus 1985-2004/Oct W2 | (c) 2004 Japan Science and Tech Corp(JST) |
| File | 438: Library Lit. & Info. Science 1984-2004/Sep | (c) 2004 The HW Wilson Co |

File 6:NTIS 1964-2004/Oct
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File 99:Wilson Appl. Sci & Tech Abs 1983-2004/Sep
(c) 2004 The HW Wilson Co.
File 95:TEME-Technology & Management 1989-2004/Jun W1
(c) 2004 FIZ TECHNIK
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
(c) 2002 The Gale Group

32/5/1 (Item 1 from file: 8)
DIALOG(R)File 8:EI Compendex(R)
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06326105 E.I. No: EIP03127401018

Title: Proceedings of the 2001 international chemical information conference

Author: Collier, H. (Ed.)

Conference Title: Proceedings of the 2000 International Chemical Information Conference

Conference Location: Annecy, France Conference Date: 20001022-20001025

E.I. Conference No.: 60469

Source: Proceedings of the 2000 International Chemical Information Conference 2000.

Publication Year: 2000

ISBN: 1873699689

Language: English

Document Type: CP; (Conference Review) Treatment: T; (Theoretical)

Journal Announcement: 0303W4

Abstract: The proceeding contains 16 papers from the conference on the 2001 International Chemical Information Conference. The topics discussed include: measuring the role and perception of service in online information; e-commerce in chemicals: the third **generation**; integration of online and internet patent information resources; controlling unsolicited email and its implications for internet regulation: Spam, can it be canned?; designing a synthetic route with the help of reaction databases: user feedback; navigating the real and virtual chemical worlds; integrating electronic notebook systems with traditional **databases**.
(Edited **abstract**)

Descriptors: Chemical industry; Online systems; Electronic commerce; Internet; Database systems; Web browsers; Customer satisfaction; **Productivity**; XML; Decision making; Information management; **Metadata**; Intellectual property

Identifiers: Information solutions; Customer specifications; Information flow; Knowledge management; Electronic journals; Transactions; Information resources; Patentability search; Internet service provider; EiRev

Classification Codes:

722.4 (Digital Computers & Systems); 723.5 (Computer Applications); 723.3 (Database Systems); 913.1 (Production Engineering); 912.2 (Management); 903.2 (Information Dissemination); 902.3 (Legal Aspects); 911.4 (Marketing); 911.2 (Industrial Economics)

805 (Chemical Engineering, General); 722 (Computer Hardware); 723 (Computer Software, Data Handling & Applications); 912 (Industrial Engineering & Management); 913 (Production Planning & Control; Manufacturing); 903 (Information Science); 902 (Engineering Graphics; Engineering Standards; Patents); 911 (Cost & Value Engineering; Industrial Economics); 731 (Automatic Control Principles & Applications)

80 (CHEMICAL ENGINEERING, GENERAL); 72 (COMPUTERS & DATA PROCESSING); 91 (ENGINEERING MANAGEMENT); 90 (ENGINEERING, GENERAL); 73 (CONTROL ENGINEERING)

32/5/2 (Item 2 from file: 8)
DIALOG(R)File 8:EI Compendex(R)
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05962059 E.I. No: EIP01526774854

Title: Dynamic video abstract generation using an object DBMS

Author: Martin, H.; Lozano, R.

Corporate Source: Laboratoire LSR Universite Joseph Fourier, 38402 Saint Martin d'Heres Cedex, France

Conference Title: 2000 IEEE International Conference on Multimedia and Expo (ICME 2000)

Conference Location: New York, NY, United States Conference Date: 20000730-20000802

E.I. Conference No.: 58780

Source: IEEE International Conference on Multi-Media and Expo n

Publication Year: 2000

Language: English

Document Type: CA; (Conference Article) Treatment: T; (Theoretical)

Journal Announcement: 0112W5

Abstract: Providing fast and efficient accesses to video content is a very important challenge for video database management systems. We developed a video database system which includes modelling capabilities in order to facilitate the creation of new videos from existing ones, to annotate video segments, to describe video data structure and to query video data. Such a work sets several problems in order to deal with video duration and to access as fast as possible to relevant parts of videos. In this paper, we introduce the concept of dynamic **abstract** in order to adapt the video content to user time requirements during video presentation. 11 Refs.

Descriptors: **Abstracting ; Database systems ;** Data structures; Query languages; Algorithms; **Metadata ;** Semantics

Identifiers: Video **abstraction**

Classification Codes:

723.1.1 (Computer Programming Languages)

903.1 (Information Sources & Analysis); 723.3 (Database Systems); 723.2 (Data Processing); 723.1 (Computer Programming)

903 (Information Science); 723 (Computer Software, Data Handling & Applications)

90 (ENGINEERING, GENERAL); 72 (COMPUTERS & DATA PROCESSING)

32/5/3 (Item 3 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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05722614 E.I. No: EIP00125423914

Title: Continental communication network for remote sensing and GIS data

Author: Hicks, Graham J.; Goodenough, David G.; Bhogal, A.S.; Niemann, K.O.

Corporate Source: Government of British Canada, Victoria, BC, Can

Conference Title: 2000 International Geoscience and Remote Sensing Symposium (IGARSS 2000)

Conference Location: Honolulu, HI, USA Conference Date: 20000724-20000728

E.I. Conference No.: 57638

Source: International Geoscience and Remote Sensing Symposium (IGARSS) v 3 2000. IEEE, Piscataway, NJ, USA, 00CB37120. p 972-977

Publication Year: 2000

CODEN: IGRSE3

Language: English

Document Type: CA; (Conference Article) Treatment: G; (General Review)

Journal Announcement: 0101W3

Abstract: Monitoring Canada's forests with remote sensing necessitates the handling and distributed processing of vast quantities of remotely sensed data. A new project (EOSD) has been designed to create national forest products for Canada. Creation of the EOSD products will require the use of Landsat and Radarsat data, topographic GIS files, historical forest cover GIS files, and field plot/ground data. The GIS and remote sensing data sources are distributed across Canada and the United States. During the next five years, there will be large increases in the volume of remotely sensed data. Canada through Canarie, a federally funded agency, created high-speed electronic networks, CA*net2 and recently CA*net 3, for the rapid movement of large volumes of data. As a CA*net 2 activity, we created a capacity for moving large volumes of imagery over ATM and high-speed Ethernet networks. A terabyte of remote sensing data held within a robotic data store has been accessible from Pacific Forestry Centre over this network. In this paper we **present** the structure of the high-speed network for the EOSD project. This network **links data** stores at five research centers and the headquarters of Natural Resources Canada. It also connects to some provincial information systems and to numerous advanced networks of the United States. This latter connection will facilitate the

Classification Codes:

903.3 (Information Retrieval & Use); 722.2 (Computer Peripheral Equipment); 723.2 (Data Processing)
903 (Information Science); 722 (Computer Hardware); 723 (Computer Software)
90 (GENERAL ENGINEERING); 72 (COMPUTERS & DATA PROCESSING)

32/5/19 (Item 19 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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04976344 E.I. No: EIP98034117357

Title: Multimedia-based intelligent configurator for network access equipment

Author: Fang, Luyuan; Li, Tao

Corporate Source: Racal Data Group, Sunrise, FL, USA

Conference Title: Proceedings of the 1998 IEEE Network Operations and Management Symposium. Part 3 (of 3)

Conference Location: New Orleans, LA, USA Conference Date: 19980215-19980220

Sponsor: IEEE

E.I. Conference No.: 48131

Source: IEEE Symposium Record on Network Operations and Management Symposium v 3 1998. IEEE, Piscataway, NJ, USA, 98CB36158. p 805-813

Publication Year: 1998

CODEN: INOSE3

Language: English

Document Type: CA; (Conference Article) Treatment: A; (Applications); G; (General Review)

Journal Announcement: 9805W2

Abstract: We propose a novel approach to equipment configuration, which takes advantage of multimedia presentation and **intelligent agents** technology to facilitate the configuration process. The system implements a dynamic user interface with selective hiding and high-lighting. In addition, an intelligent configuration agent is incorporated into our configuration program. The intelligent configuration agent will **automatically search** and find inconsistencies during configuration process and will notify the user. A prototype using this technique is being implemented for the RACAL FastFrame**T**M **product** line. (Author **abstract**)

Descriptors: *Digital communication systems; Data communication equipment; Interactive computer systems; Artificial intelligence; User interfaces

Identifiers: Multimedia based intelligent configurator; Network access equipment

Classification Codes:

722.3 (Data Communication, Equipment & Techniques); 722.4 (Digital Computers & Systems); 723.4 (Artificial Intelligence); 722.2 (Computer Peripheral Equipment)

722 (Computer Hardware); 723 (Computer Software)

72 (COMPUTERS & DATA PROCESSING)

32/5/20 (Item 20 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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04861925 E.I. No: EIP97113908013

Title: Itsy bitsy spider

Author: Chen, H.; Schatz, B.R.; Ramsey, M.; Chung, Y.-M.

Conference Title: Proceedings of the 1997 2nd ACM International Conference on Digital Libraries

Conference Location: Philadelphia, PA, USA Conference Date: 19970723-19970726

Sponsor: ACM

E.I. Conference No.: 47163

Source: Proceedings of the ACM International Conference on Digital

Publication Year: 1997

CODEN: 002373

Language: English

Document Type: CA; (Conference Article) Treatment: T; (Theoretical); X; (Experimental)

Journal Announcement: 9712W4

Abstract: The suggested approach, which is grounded in **automatic** textual analysis of Web documents and general-purpose **search** algorithms, aims to address the Web **search** problem by **creating** dynamic and 'intelligent' personal **spiders** (agents) that take users' requests and perform real-time, customized **searches**. In user evaluation, the genetic algorithm **spider** obtained a significantly higher recall value than that of the best first **search spider**. The Java-based interface is found to be a necessary component for design of a truly interactive and dynamic **Web agent**. (Edited author **abstract**)

Descriptors: *Information retrieval; Information retrieval systems; Information services; Libraries; Algorithms; Computer networks

Identifiers: **Web agent**

Classification Codes:

903.4.1 (Libraries)

903.3 (Information Retrieval & Use); 903.4 (Information Services);

722.4 (Digital Computers & Systems)

903 (Information Science); 722 (Computer Hardware)

90 (GENERAL ENGINEERING); 72 (COMPUTERS & DATA PROCESSING)

32/5/21 (Item 21 from file: 8)

DIALOG(R)File 8:EI Compendex(R)

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04761032 E.I. No: EIP97073740168

Title: **Scalable comparison-shopping agent for the World-Wide Web**

Author: Doorenbos, Robert B.; Etzioni, Oren; Weld, Daniel S.

Corporate Source: Univ of Washington, Seattle, WA, USA

Conference Title: Proceedings of the 1997 1st International Conference on Autonomous Agents

Conference Location: Marina del Rey, CA, USA Conference Date: 19970205-19970208

Sponsor: ACM SIGART

E.I. Conference No.: 46654

Source: Proceedings of the International Conference on Autonomous Agents 1997. ACM, New York, NY, USA. p 39-48

Publication Year: 1997

CODEN: 002624

Language: English

Document Type: CA; (Conference Article) Treatment: G; (General Review)

Journal Announcement: 9709W2

Abstract: The World-Wide-Web is less agent-friendly than we might hope. Most information on the Web is presented in loosely structured natural language text with no agent-readable semantics. HTML annotations structure the display of Web pages, but provide virtually no insight into their content. Thus, the designers of intelligent **Web agents** need to address the following **questions**: (1) To what extent can an agent understand information published at Web sites? (2) Is the agent's understanding sufficient to provide genuinely useful assistance to users? (3) Is site-specific hand-coding necessary, or can the agent **automatically** extract information from unfamiliar Web sites? (4) What aspects of the Web facilitate this competence? In this paper we investigate these issues with a case study using ShopBot, a fully-implemented, domain-independent comparison-shopping agent. Given the home pages of several online stores, ShopBot autonomously learns how to shop at those vendors. After learning, it is able to speedily visit over a dozen software and CD vendors, extract **product** information, and summarize the results for the user. Preliminary studies show that ShopBot enables users to both find superior prices and substantially reduce Web shopping time. Remarkably, ShopBot achieves this performance without sophisticated natural language processing, and requires

retrieval process; SQL ser

Class Codes: A9575M (Astronomical data and image processing); A4230L (Modulation and optical transfer functions); C7350 (Astronomy and astrophysics computing); C7250N (Search engines); C5260B (Computer vision and image processing techniques); C6140D (High level languages); C6160 (Database management systems (DBMS)); C6180 (User interfaces); C7250R (Information retrieval techniques)

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32/5/45 (Item 4 from file: 2)

DIALOG(R)File 2:INSPEC

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6192561 INSPEC Abstract Number: C1999-04-7250-022

Title: The Internet and information retrieval research: a brief review

Author(s): Chowdhury, G.G.

Author Affiliation: Sch. of Appl. Sci., Nanyang Technol. Univ., Singapore

Journal: Journal of Documentation vol.55, no.2 p.209-25

Publisher: Aslib,

Publication Date: March 1999 Country of Publication: UK

CODEN: JDOCAS ISSN: 0022-0418

SICI: 0022-0418(199903)55:2L:209:IIRR;1-S

Material Identity Number: J150-1999-002

Language: English Document Type: Journal Paper (JP)

Treatment: General, Review (G)

Abstract: The Internet and related information services attract increasing interest from information retrieval researchers. A survey of recent publications show that frequent topics are the effectiveness of search **engines**, information validation and quality, user studies, design of user **interfaces**, **data** structures and **metadata**, classification and vocabulary based aids, and **indexing** and search agents. **Current** research in these areas is briefly discussed. The changing balance between CD-ROM sources and traditional online searching is quite important and is noted.

(72 Refs)

Subfile: C

Descriptors: classification; data structures; **indexing**; information resources; information retrieval; Internet; search **engines**; vocabulary

Identifiers: Internet; information services; information retrieval research; search **engines**; information validation; information quality; user studies; user interface design; data structures; **metadata**; classification; vocabulary based aids; search agents; **indexing** agents; CD-ROM sources; online searching

Class Codes: C7250 (Information storage and retrieval); C7210N (Information networks); C7240 (Information analysis and indexing)

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32/5/46 (Item 5 from file: 2)

DIALOG(R)File 2:INSPEC

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6182240 INSPEC Abstract Number: C1999-04-7210N-057

Title: Collaborative Web crawling: information gathering/processing over Internet

Author(s): Shang-Hua Teng; Qi Lu; Eichstaedt, M.; Ford, D.; Lehman, T.

Author Affiliation: Dept. of Comput. Sci., Illinois Univ., Urbana, IL, USA

Conference Title: Proceedings of the 32nd Annual Hawaii International Conference on Systems Sciences. 1999. HICSS-32. Abstracts and CD-ROM of Full Papers p.12 pp.

Editor(s): Sprague, R.H., Jr.

Publisher: IEEE Comput. Soc, Los Alamitos, CA, USA

Publication Date: 1999 Country of Publication: USA liii+341 pp.

ISBN: 0 7695 0001 3 Material Identity Number: XX-1999-00169

Conference Title: Proceedings of HICSS 32 - 32nd Annual Hawaii International Conference on System Sciences

Conference Date: 5-8 Jan 1999 Conference Location: Maui, HI, USA
Language: English Document Type: Conference Paper (PA)
Treatment: Practical (P)

Abstract: The main objective of the IBM Grand Central Station (GCS) project is to gather all types of information in any format (text, data, image, graphics, audio, video) from cyberspace, to process/index/summarize the information, and to push the right information to the right people. Because of the very large scale of cyberspace, parallel processing in both crawling/gathering and information processing is indispensable. We present a scalable method for collaborative Web crawling and information processing. The method includes an automatic cyberspace partitioner which is designed to balance and re-balance the load dynamically among processors. It can be used when all Web **crawlers** are located on a tightly coupled high-performance system as well as when they are scattered in a distributed environment. We implemented these algorithms in Java. (12 Refs)

Subfile: C

Descriptors: information resources; information retrieval; Internet; Java ; resource allocation

Identifiers: collaborative Web crawling; information gathering; information processing; Internet; IBM Grand Central Station project; cyberspace; indexing; parallel processing; load balancing; high-performance system; distributed environment; Java

Class Codes: C7210N (Information networks); C7250R (Information retrieval techniques)

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32/5/47 (Item 6 from file: 2)

DIALOG(R) File 2:INSPEC

(c) 2004 Institution of Electrical Engineers. All rts. reserv.

6061909 INSPEC Abstract Number: C9812-6160-005

Title: A toolkit to facilitate the querying and integration of tabular data from semistructured documents

Author(s): Hodge, L.E.; Gray, W.A.; Fiddian, N.J.

Author Affiliation: Dept. of Comput. Eng., Univ. of Wales, Cardiff, UK

Conference Title: Advances in Databases. 16th British National Conference on Databases. BNCOD 16. Proceedings p.171-2

Editor(s): Embury, S.M.; Fiddian, N.J.; Gray, W.A.; Jones, A.C.

Publisher: Springer-Verlag, Berlin, Germany

Publication Date: 1998 Country of Publication: Germany xii+182 pp.

ISBN: 3 540 64659 0 Material Identity Number: XX98-01732

Conference Title: Advances in Databases. 16th British National Conference on Databases. BNCOD 16. Proceedings

Conference Date: 6-8 July 1998 Conference Location: Cardiff, UK

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: The advent of the World Wide Web (WWW) has meant there is a growing need to **link information** held in databases and files with information held in other types of structure. This paper **presents** a toolkit which enables information held in tables within documents to be linked with data held in conventional databases. The toolkit addresses the problems of: extracting tabular data from various types of document e.g. semistructured text, HTML and spreadsheets; providing a standard interface to these tables via a standard query language; and extracting useful table **meta - data** from the table and accompanying text. (4 Refs)

Subfile: C

Descriptors: database management systems; document handling; Internet; query languages; query processing; user interfaces

Identifiers: querying; tabular data; semistructured documents; World Wide Web; toolkit; semistructured text; HTML; spreadsheets; user interface; query language; **meta - data** ; Internet

Class Codes: C6160 (Database management systems (DBMS)); C6130D (Document processing techniques); C7210 (Information services and centres); C6140D (High level languages)

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32/5/48 (Item 7 from file: 2)
DIALOG(R) File 2:INSPEC
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5602821 INSPEC Abstract Number: C9707-7250N-017

Title: Learning models for multi-source integration

Author(s): Tejada, S.; Knoblock, C.A.; Minton, S.

Author Affiliation: Inf. Sci. Inst., Univ. of Southern California, Marina del Rey, CA, USA

Conference Title: Proceedings of the Thirteenth National Conference on Artificial Intelligence and the Eighth Innovative Applications of Artificial Intelligence Conference Part vol.2 p.1412 vol.2

Publisher: MIT Press, Cambridge, MA, USA

Publication Date: 1996 **Country of Publication:** USA 2 vol. xx+xii+1600 pp.

ISBN: 0 262 51091 X **Material Identity Number:** XX97-01176

Conference Title: Proceedings of National Conference on Artificial Intelligence

Conference Sponsor: AAAI

Conference Date: 4-8 Aug. 1996 **Conference Location:** Portland, OR, USA

Language: English **Document Type:** Conference Paper (PA)

Treatment: Practical (P)

Abstract: Because of the growing number of information sources available through the Internet there are many cases in which information needed to solve a problem or answer a **question** is spread across several information sources. For example, when given two sources, one about comic books and the other about super heroes, you might want to ask the **question** "is **Spiderman** a Marvel Super Hero?" This **query** accesses both sources; therefore, it is necessary to have information about the relationships of the data within each source and between sources to properly access and integrate the data retrieved. The SIMS information broker captures this type of information in the form of a model. All the information sources map into the model providing the user with a single interface to multiple sources. Presently, models are manually constructed by human experts who are familiar with the data stored in the sources. Automation of this task would improve efficiency and accuracy, especially for large information sources. We have conducted preliminary work in automating model construction. Our approach to learning models examines all of the data to extract the relationships needed. Learning the model is an iterative process which involves user interaction. The user can make corrections or specify an information source to be added or deleted. The model proposed to the user is **generated** by heuristics we have developed to derive the necessary relationships from the data. These heuristics involve **creating abstract** descriptions of the data. We have assumed the data is stored as tables. (2 Refs)

Subfile: C

Descriptors: **automatic** programming; interactive systems; Internet; learning (artificial intelligence); online front-ends

Identifiers: learning models; multi source integration; information sources; Internet; SIMS information broker; single interface; model construction automation; iterative process; user interaction; heuristics; **abstract** descriptions

Class Codes: C7250N (Front end systems for online searching); C7210 (Information services and centres); C6170K (Knowledge engineering techniques); C6115 (Programming support)

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32/5/49 (Item 8 from file: 2)
DIALOG(R) File 2:INSPEC
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5501038 INSPEC Abstract Number: C9703-7420-038

Title: Generate **parallel behavior structure** for automatic workshop problem with GP

• Author(s): Wenwei Yu; Kaifu, Y.; Jin, D.
Author Affiliation: Dept. of Precision Eng., Hokkaido Univ., Sapporo, Japan
Conference Title: Computer Applications in Production and Engineering. Proceedings of CAPE '95 p.291-8
Editor(s): Sun, Q.; Tang, Z.; Zhang, Y.
Publisher: Chapman & Hall, London, UK
Publication Date: 1995 Country of Publication: UK xi+899 pp.
ISBN: 0 412 70770 5 Material Identity Number: XX95-01222
Conference Title: Proceedings of the Fifth International Conference on Computer Applications in Production and Engineering
Conference Sponsor: IFIP; Comput. Eng. & Application Soc. Chinese Inst. Electron
Conference Date: May 1995 Conference Location: Beijing, China
Language: English Document Type: Conference Paper (PA)
Treatment: Practical (P)
Abstract: Existing research applies hierarchical behavior to AI problems, but in a few instances, hierarchical behavior is **abstracted** for multi agent problem solving. We introduce a scheme that creates a series of behavior structures which **pursue** parallel mechanisms in acquiring the action plan of multi agents in the case where each agent should autonomously make a decision, i.e., make a decision independently, according to the dynamic environment. GP (genetic programming) is used for evolution of the behavior structure. By solving the **automatic** workshop problem wherein the working and moving schedule is made by each robot, considering obstacle avoidance, process order and working ability, we show that the scheme is viable and promising. (5 Refs)
Subfile: C
Descriptors: cooperative systems; genetic algorithms; industrial robots; parallel programming; process control; **software agents**
Identifiers: parallel behavior structure **generation**; **automatic** workshop problem; hierarchical behavior; AI problems; multi agent problem solving; behavior structures; parallel mechanisms; action plan; decision making; dynamic environment; genetic programming; GP; moving schedule; obstacle avoidance; process order; working ability
Class Codes: C7420 (Control engineering computing); C3390 (Robotics); C6170 (Expert systems); C6110P (Parallel programming); C1180 (Optimisation techniques)
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32/5/50 (Item 1 from file: 233)
DIALOG(R) File 233:Internet & Personal Comp. Abs.
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00552983 99IW11-113

PowerCenter 1.6 seamlessly blends varied data types -- Informatica includes tools that increase manageability

Biggs, Maggie
InfoWorld, November 8, 1999, v21 n45 p69-70, 2 Page(s)
ISSN: 0199-6649
Company Name: Informatica
URL: <http://www.informatica.com>
Product Name: PowerCenter 1.6
Languages: English
Document Type: Software Review
Grade (of Product Reviewed): B
Hardware/Software Compatibility: IBM PC Compatible
Geographic Location: United States

Presents a favorable review of PowerCenter 1.6 (\$100,000), data-integration software from Informatica Corp. of Palo Alto, CA (800). Runs on IBM PC Compatibles with Windows. Explains that it **unites** data marts, data warehouses, and decision-support operations. Cites features such as support of views of enterprisewide **metadata**, parallel processing of transformations, support of multiple data sources, adequate documentation, and integration with enterprise resource planning applications, legacy data and decision-support deployments. Notes, however,

that it requires considerable initial investment and training costs. Concludes that to successfully leverage operational and analytical data for critical business decision-making requires seamless data integration and flexibility. Maintains that PowerCenter is a worthwhile investment for those who are seeking this greater degree of manageability. Includes one screen display and a product summary. (MEM)

Descriptors: Information Management; Data Warehousing; Client-Server Computing; Enterprise Computing; Upgrade; Productivity Software; Data Analysis

Identifiers: PowerCenter 1.6; Informatica

32/5/51 (Item 1 from file: 94)

DIALOG(R)File 94:JICST-EPlus

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04002893 JICST ACCESSION NUMBER: 99A0244575 FILE SEGMENT: JICST-E

Natural language processing for the search engine goo/InfoBee.

INAGAKI HIROHITO (1); OKUBO MASAOKI (1); SUGIZAKI MASAYUKI (1); TANAKA KAZUO (1)

(1) Nippon Telegraph & Telephone Corp., Human Interface Lab.

Joho Shori Gakkai Kenkyu Hokoku, 1999, VOL.99,NO.2(NL-129), PAGE.19-26, FIG.1, REF.10

JOURNAL NUMBER: Z0031BAO ISSN NO: 0919-6072

UNIVERSAL DECIMAL CLASSIFICATION: 681.3:80 681.3.02+ 002.5:005

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

ABSTRACT: Not only mass-media but also personal media can easily be published in the Internet world, so many people began to think this is a huge network and we need navigator to traverse the Internet world. First, the States began to **create** several Internet **search** engines to navigate Internet. Corresponding such trends, NTT launched "goo" Internet **search** engine utilizing Inktomi's **search** engine technologies and InfoBee natural language processing technologies. Inktomi had been a small venture company that integrated the HotBot Internet **search** engine, but their scalable **search** engine technologies and Internet technology were better **matching** to InfoBee Japanese natural language processing technology. There are three parts in the Internet **search** engine. One is the **crawler** that gathers HTML texts from the Internet world. Second is the indexer that makes index from gathered HTML texts. Third is the text retriever that yields answer from a user **query** using index. The **crawler**, indexer, and text retriever utilize Japanese natural language processing. Of course, not only Internet **search** service but also several services such as mail services, information directory services, and information providing services are important as a portal service. In this paper, we review the basic characteristics of goo/InfoBee **search** engine and several services that utilize Japanese natural language processing as a portal service. (author abst.)

DESCRIPTORS: **automatic** language processing; information retrieval; internet; information service; Japanese; indexing(documentation); indexer; **abstracting**

IDENTIFIERS: **automatic abstract**

BROADER DESCRIPTORS: computer application; utilization; information processing; treatment; retrieval; computer network; communication network; information network; network; service; oriental language; natural language; language; information arrangement technique; documentation; information management; management; documentalist; job classified employee; worker; work and operation

CLASSIFICATION CODE(S): JE06000L; JE15050M; AC06020S

32/5/52 (Item 1 from file: 6)

DIALOG(R)File 6:NTIS

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